

"BEST PRACTICES IN EVALUATING AND DEVELOPING THE LEARNING COMPETENCE"

final report

Based on the research carried out between February and April 2016 within *Let's learn how to learn! - Raising awareness to the importance of and providing an innovative solution for the inclusion of the training of learning skills in existing higher education curricula*, in three groups of organisations:

- Educational institutions (universities, schools – so-called formal education),
- Training organisations (language and coaching schools, continuing education centres, etc.),
- Non-educational organizations (companies, workplaces – employers).

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Open University of the Netherlands (NL)

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1. INTRODUCTION (about the project)

This work is a summary of the original research carried out by Wrocław University of Economics, BEST Institut für Berufsbezogene Weiterbildung und Personal training Gmbh, University of Pannonia, Open Universiteit Nederland (OUNL) between February and April 2016 within Let's learn how to learn! project. - Raising awareness to the importance of and providing an innovative solution for the inclusion of the training of learning skills in existing higher education curricula.

Let's learn how to learn!			
Acronym/Short title	Reference code	Duration	Partners
LELLE	2015-1-HU01-KA203-013619	2015.09.01 – 2017.10.31	University of Pannonia (HU), Wrocław University of Economics (PL), BEST Institut für Berufsbezogene Weiterbildung und Personaltraining Gmbh. (AT), Open Universiteit Nederland (NL), Europa Consortium Regional Development Non-profit Limited (HU)

The main objective of the project is to help equip students with learning skills needed for completing their higher education studies, and also for their future employment by building the development of such skills into the existing curricula. The aim is to bridge the training gap by filtering the learning skills of students entering universities and then training them those missing learning skills as part of their subjects. The project is designed to help students to find employment upon graduation and be able to keep that job by working efficiently and effectively thanks to the previously gained learning skills they have on hand. The project is being financed from Erasmus+ Programme.

2. RESEARCH PROBLEM (subject and aims of the research)

The LELLE consortium has decided in consensus after in-depth desktop and literature research as well as internal discussions to base the overarching competence "learning to learn" on the three core skill-sets "critical thinking", "problem-solving" and "managing own learning process". These three core skill-sets together with their respective subsets (see figure 1 below) were identified as critical for learners in general and in particular graduates to enter the workforce: Several research studies and projects (such as ARISTOTELE, WACOM, AGRICOM, ACT, etc.) have addressed horizontal competences with a special focus on self-directed learning and appropriate strategies. What is more, the joint communication by the European



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Parliament and the European Council on key competences for lifelong learning have identified the importance of "learning to learn" and included it as one of the eight key competences for lifelong learning.

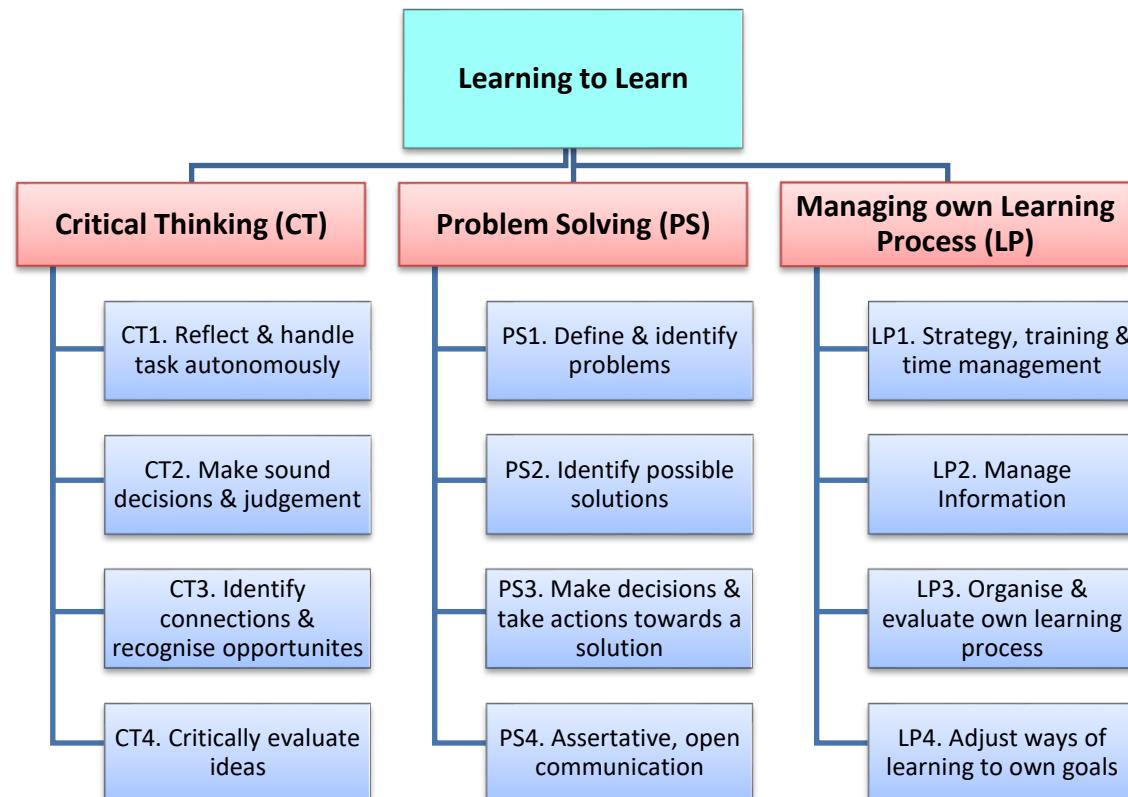


Figure 1: Three core skill-sets in Learning to Learn



The framework of the research (see Figure 1) shows core skill-sets in learning to learn competence. The LELLE consortium has agreed on more detailed definitions of these terms:

- ⦿ **Learning to learn** is the ability to pursue and persist in learning, to organize one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.
- ⦿ **Critical thinking** – to reflect and handle tasks autonomously; to make sound decisions and reasonable judgements; to identify connections and recognize opportunities; critically evaluate ideas.
- ⦿ **Problem solving** – to understand the process of successful problem-solving; to be able to solve problems independently and collaboratively; a mixture of analytical and creative thinking; assertive, open communication.
- ⦿ **Managing your own learning process** – strategy, training, time management; the ability to access, gain, process and assimilate new knowledge and skills, organize their own learning, evaluate their own work; integrating information into the learning process in appropriate ways, adjusting way of learning to own goals.

The basic aim of the research was to collect best practices – solutions used – for the evaluation and development of the learning competence. This research is also to help correctly identify and understand the core of this competence. Opinions of employees from institutions of higher education, organizations that educate adults as well as employers (HR departments) in Europe and outside were the key information source. During the research - in relation to the learning competence and the skills it involves (critical thinking, solving problems, managing your own learning process) - such issues were mentioned as competence/skill importance, areas/fields where it is particularly important, its determinants and ways of evaluating it as well as its development.



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3. RESEARCH METHOD (the way the research is carried out, description of the respondents)

The research was conducted between February and April 2016 in the form of a survey and in-depth interviews. The questionnaires were sent to the respondents by email and were sent back similarly. The in-depth interviews were conducted in person or by electronic communicators (e.g. Skype) by professional researchers. Seventy two correctly filled in questionnaires and in-depths reports from the interviews were received, they were subject to further analysis.



April 2016



E-mail survey



72 questionnaires

The research covered universities, scientific and research centres related to LLL, adult education centres (continuing education centres), training organisations, psychological and educational counselling services for adults, teacher education centres, counsellors, schools, foundations, associations operating in the education and continuing education field, career services and carrier counselling entities, job agencies, human resources departments in companies. In this work the named entities were divided into three categories:

- [1] educational institutions (universities, schools – so-called formal education) – 34 entities,
- [2] training organisations (language and coaching schools, continuing education centres, etc.) – 19 entities,
- [3] non-educational organizations (companies, workplaces – employers) – 19 entities.

4. SUMMARIES OF IN-DEPTH STUDIES CONDUCTED BY PARTNERS

The following results are presented in four parts:

- ⇒ [I] Summary of in-depth studies conducted by Wroclaw University of Economics (PL),
- ⇒ [II] Summary of in-depth studies conducted by BEST Institut für Berufsbezogene Weiterbildung und Personal training GmbH (AT),
- ⇒ [III] Summary of in-depth studies conducted by University of Pannonia (HU),
- ⇒ [IV] Summary of in-depth studies conducted by Open Universiteit Nederland.



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I] SUMMARY OF IN-DEPTH STUDIES CONDUCTED BY WROCLAW UNIVERSITY OF ECONOMICS (PL)

Polish partner (Wrocław University of Economics) conducted 29 interviews with educational institutions (15), training organisations (9) and non-educational organizations (5). The questioned people were representing the following countries: Poland (13), Germany (4), Belgium (3), Lithuania (2), Ukraine (2), Czech Republic (2), Slovakia (1), Bulgaria (1), and India (1). Eighteen women and eleven men took part in the survey.

The results are presented in five main parts: [1] learning competence, [2] critical thinking, [3] problem solving, [4] managing of own learning process and [5] recommendations of respondents regarding solutions/tools/methods of diagnosing and developing of the competence of learning. Each part separately analyzes responses from educational institutions, training organisations and organizations not related to education. The first four parts, to every type of organisation, are divided into five thematic categories: (1) the importance of competence, (2) areas/fields where the competence is particularly needed, (3) determinants of the competence, (4) ways of verifying the competence and (5) actions related to the development of the competence. The last part is divided into two categories: (1) recommendations of respondents regarding methods of diagnosing of the learning competence and (2) recommendations regarding tools for developing of the learning competence.

- **Part 1.Learning competence**

EDUCATIONAL INSTITUTIONS (universities, schools – so-called formal education)

➲ The importance of the learning competence

In the studied educational institutions the learning competence is perceived as the key competence in life that allows to act efficiently and achieve the set goals. It is a basis for implementing well (reliably) the fundamental operational objective of these entities – transferring knowledge to students and providing them with an opportunity to self-develop (to support them in obtaining knowledge). Universities, higher schools as well as lower levels of formal education are an extremely complex and changeable environment. It is not enough to obtain specific knowledge once, to know the facts. Your own competences must be assessed and you need to keep gaining new experiences. The learning skill is simply essential for this. What is more, the respondents highlighted the need to develop this competence not only in people being educated but also in educators as well as administrative and technical employees.



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For students, the learning competence is a necessary condition to achieve education results specified in curricula. Students have to obtain knowledge, skills, and social competences described in the curriculum in a specific time. Without the learning competence – without developing it – they will not be able to do it at a proper level.

On the other hand, academics have to develop the learning competence to improve their teaching skills, increase academic qualifications and set a good example to their students. This is a necessary condition to perform the role of an academic teacher properly in the times when the progress of knowledge, communication technologies, and teaching methods forces to improve continually their competences.

Finally, administrative and technical employees should also improve their competences in the analysed scope, in particular in the face of the challenges they are being faced with due to the informatization of their working skills and formal changes (changing external regulations, internal rules), which are daily routine at the University that must be faced with the developed learning competence.

➲ Areas/fields where the learning competence is particularly needed

In their comments, the respondents pointed out many times that the learning competence is important in every aspect of human life, not only in educational (school), professional situations, but also in private (personal) situation, including self-development.

Students need to have the learning competence to be able to use of university's educational offer as well as sources of knowledge outside the university and develop the obtained skills. They need to adjust quickly to new technologies of transferring knowledge and new sources of information (online library bases, educational materials in the form of electronic and online sources, packages and software used in education, etc.). The learning competence is needed in class but also for individual work (your own work at home). Its lack is shown at the stage of preparing a diploma thesis when students have considerable problems with integrating their current knowledge and choosing their own field of interest for exploration within the bachelor's or master's thesis.

The learning competence is, in a particular way, important for teachers – those who teach others, setting an example to them, the development of their students depends on them. Therefore the task of university teachers, apart from teaching, is also to improve working skills and improve their own qualifications, including the learning competence in all areas – academic and research, teaching and educational, and organizational. The progress of knowledge, communication technology and teaching methods forces the work that ensures university teachers are ahead of students in gaining knowledge, the ability to use technology and new sources of information, as well as the continuous improvement of their competences.



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Administrative and technical employees also need to have a developed learning competence. Without continuous improvement of their knowledge and skills (including audio-visual and communication technologies, informatization of student service processes) the university takes a risk that the teaching process is going to take place in conditions not favouring high educational level.

⌚ Determinants of the obtained learning competence (how the learning competence is manifested)

According to the respondents the obtained learning competence is manifested in educational, professional, and personal achievements of an individual. Internal motivation has a great impact on the development of the analysed competence. If a person is open to changes, willing to learn new thing, take new challenges, is interested in his or her own development (also carried out independently), then certainly he or she has this competence.

In students the learning competence level is expressed in the obtained education results. During an observation in class you can assess if the students' attitude to solving problems is changing because of the transferred knowledge and developed skills. If they can explain the learnt content and use it in practice when they are performing tasks they were given. If they reflect on the discussed issues. If they can ask extra questions to the lecturer or look for information on their own and use it. The effects are seen in students' work, in increasingly better results of subject and diploma exams, exams, tests, interim projects, essays, research results.

In academics the learning competence is usually manifested in obtaining and carrying out research, educational and development grants (projects), participation in academic conferences, dissemination of research results, preparing new education programmes, updating educational contents, preparing educational material, lectures in foreign languages, using work tools for modern teaching, implementation of blended learning or e-learning courses, participation in trainings and obtaining knowledge on methods of student activation, development of the academic staff (including supervision over obligatory works), or fulfilling a function due to election or appointment. The level of the analysed competence in an individual employee is seen after a periodic evaluation.

In administrative and technical employees the determinant of having the learning competence may include having and sharing current professional knowledge (law regulations, new technologies, the way of performing specific activities), obtaining certificates confirming qualifications or development of professional career.



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⦿ Ways of verifying the obtained learning competence

Recruitment stage: People admitted to work in the studied institutions have to prove their achievements in education (academics) and the practical use of their knowledge, skills and competences. In most cases the learning competence is verified directly by getting familiar with the course of their professional work and tasks completed so far, qualifications and references presented by the person applying for a job. Documents confirming professional qualifications are analysed – what qualifications the candidate has, when he or she obtained them or if they are updated. In some institutions an interview is additionally conducted and competence/diagnostic tests are made, including solving practical tasks related to a specific position. However, they are carried out relatively rarely. The competences of applicants for studies are verified based on the results of the passed Matura exam or results of entrance exams for studies.

Employment period/Studies period: During the period of employment, the studied institutions usually use periodic evaluation systems for academics, where their activity in research, teaching, organization and development of the academic staff is comprehensively described. Class inspections are also a frequent way to verify the obtained competences (assessment of educators by superiors – it includes the used methods of work, educational results, adjustment to current requirements, motivation to work, and involvement in the process of transferring knowledge) and student surveys where relevant students assess the academics' results of learning competence in teaching and organizational practice. In students, competences are verified during classes (participation in a discussion, group work) and based on periodic subject and diploma exams, final exams, tests, interim papers, projects, essays, research results. Periodic assessment of competences in administrative and technical employees is made relatively rarely.

EDUCATIONAL INSTITUTIONS – methods/tools verifying the obtained learning competence (list)		
Students	Academics	Administrative and technical employees
<ul style="list-style-type: none"> • assessment of the Matura exam results, entrance exams, • activity during classes (group work, oral comments, participation in a discussion), 	<ul style="list-style-type: none"> • analysis of recruitment documents, interview • periodic employee evaluation (obtained results in research, teaching, organization, development of the academic staff), 	<ul style="list-style-type: none"> • analysis of recruitment documents, interview • competence tests (relatively rarely), • periodic evaluation of the employee by the superior (relatively rarely)



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EDUCATIONAL INSTITUTIONS – methods/tools verifying the obtained learning competence (list)		
Students	Academics	Administrative and technical employees
<ul style="list-style-type: none"> • tests, exams, final exams (knowledge tests, practical tasks) • temporary works, projects 	<ul style="list-style-type: none"> • class inspections (evaluation of educators by superiors), • assessments by students (surveys) 	

⇒ Actions developing the learning competence

In most of the studied entities a rule was established that developing the learning competence is an individual matter of each employee. Thus there are no special – formalised and systematic – actions for additional training in this scope. Sometimes employees report the need to participate in organized trainings or workshops on their own. However, these are spontaneous and relatively rare initiatives. In general, the focus is put on self-improvement. In some institutions incentive actions are used additionally. They mainly concern two sub-groups of academics selected in student rankings: the best employees who are presented as the best educators, and the poorest ones with whom superiors talk to motivate them. It has to be clearly seen that if there are no funds, since most of the studied institutions struggle with that issue, stimulating employees to improve their learning competence has the intangible form, and the most important factors determining the efficiency of the actions taken by the employee include noticing their results by superiors. Unfortunately, in most of the studied entities these results are not systematically recorded and analysed. What is more, in these entities projects improving the learning competence do not involve students, they can rely on individual initiatives in this matter. Similarly, administrative and technical employees are not motivated to improve the discussed competence. Sending to trainings is rare, and individual initiative is not noticed or supported.

In some of the studied entities where academics have an opportunity to use any actions developing their competences, trainings are organized periodically, they introduce new solutions on improving educators' working skills. It mainly includes voice production trainings, methods of working with a group, creating syllabuses or giving feedback. Sometimes teachers use additional support in the form of coaching or mentoring provided by specialised teacher training institutions. There are also forms such as postgraduate studies, teaching conferences or visits and internships in workplaces, which allow to confront theory and practice and verify your own knowledge and skills in terms of the taught subjects, including the educational methods used. As far as students and the development of their learning competence are concerned, in the analysed entities forms such



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as individual contact with the tutor, mentoring or tutoring meetings (individual help of the thesis supervisor if the student asks it), dominate. Also, in case of these entities it seems there is no support in developing the learning competence for administrative and technical employees.

EDUCATIONAL INSTITUTIONS – methods/tools developing the learning competence (list)		
Students	Academics	Administrative and technical employees
<ul style="list-style-type: none"> • self-improvement, • individual meetings with the tutor in the form of mentoring or tutoring 	<ul style="list-style-type: none"> • self-improvement, • incentive actions (praise by the superior, evaluation talks), • trainings and workshops, • postgraduate studies, teaching conferences, • coaching, mentoring 	<ul style="list-style-type: none"> • self-improvement, • trainings and workshops (occasionally)

TRAINING ORGANISATIONS (language and coaching schools, continuing education centres, etc.)

⌚ The importance of the learning competence

In the studied training organisations (representatives of non-formal education), like in the universities and higher schools, the learning competence is a fundamental competence, superior to other competences in people working there. The employees who have developed the learning competence can adapt faster to an organization, perform the tasks they are given more efficiently, as well as act much more effectively when taking new challenges. Education is the key operational area for continuing education organisations, that is why the discussed competence is so important. It concerns in particular coaches. It is necessary to have it because of the character of their job – a coach must be aware of the changing educational reality, achievements in education, psychology, neurodidactics, as well as the development of his or her fields of work. Without the learning competence, its continuous development, the coach is not able to perform his or her tasks effectively.



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⦿ Areas/fields where the learning competence is particularly needed

Unsurprisingly, also in this group of organisations the respondents pointed out that the learning competence is needed in all areas of human life – in education, professional and private life because our everyday life has become extremely complex. We live a very intense life. Every day we have to learn something new to act efficiently and effectively. The society based on knowledge creates new challenges. Information drives the world. New ways of communication appear. The world is getting more and more global and changing ever faster. What today is working very well, tomorrow will be out of date. That is why we need skills increasing our flexibility and adaptive abilities – we need to develop the learning competence. This competence is particularly important for coaches who transfer the obtained knowledge to participants of trainings. Therefore, they especially should improve their skills and understand what an efficient learning process involves to be able to implement knowledge and use it in their work and share it with participants of trainings.

Due to the specificity of the studied organisations (scope of their activities) answers for the question about the areas/fields in which the learning competence is particularly needed included education, psychology, neurodidactics, teaching methodology, new coaching techniques, widely understood innovations in education, as well as project planning and project management, as well as training projects. As the respondents stressed, it is important that every employee should know well their workplace, understand their role in a team and requirements demanded from them, and develop in areas related to the obligations given and performed tasks.

⦿ Determinants of the obtained learning competence (how the learning competence is manifested)

According to the respondents, it is most noticeable that employees (coaches) have the learning competence when they precisely determine the objectives of their work, know the tasks they are facing, are aware of the requirements they have to meet, know their strengths and weaknesses, are able to determine a learning strategy that is efficient for themselves. They plan and consequently learn on their own, look for information, gain and process new knowledge, consult others, intentionally choose forms of institutional education. They assess the obtained knowledge and skills in a critical manner. They use it efficiently in practice (at work). They share their knowledge with others. They make decisions on their own, solve problems, create new teaching programmes, and prepare innovative training materials.

⦿ Ways of verifying the obtained learning competence

Recruitment stage: In the recruitment process the learning competence is checked mainly by analysing documents (CV, letter of application, references) and the interview (behavioural interview as well) with the candidate for a job. The candidate's skill to specify his or her own qualifications,



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strengths and weaknesses, intentions on further improvement are analysed. The studied organisations use various tools/instrument to assess competences, including Rickter model (model of assessing and developing soft skills), Tuning list (list of 31 competences that can be assessed in one day) or Gallup Institute's talent test – Strengths Finder, which evaluates if learning is one of the five key talents. Methods such as playing roles or an analysis of case study are also used. Some entities employ people who previously participated in their trainings where in the natural learning environment it was possible to verify if the candidate had the discussed competence.

Employment period: During the period of employment the studied organisations most frequently use systems of periodic evaluation developed based on competence profiles. They use various evaluation tools for this purpose - questionnaires, diagnostic tests. A frequent practice is employing for a trial period and checking the discussed competence through targeted observation, educational class inspections, talking before and after such inspections. New employees are invited to take part in projects made by organisations where they are given specific tasks to complete and after the tasks are completed, they are given feedback - a reliable assessment of the trainee's skills, including decision about further employment.

TRAINING ORGANISATIONS – methods/tools verifying the obtained learning competence (list)	
Employees (coaches)	
<ul style="list-style-type: none"> • analysis of recruitment documents (CV, letter of application, references), interview with the candidate for a job; • Rickter model, Tuning list, Gallup Institute's talent test – Strengths Finder; • playing roles, case study analysis; • verification in the learning environment (during trainings); • systems of periodic evaluation based on competence profiles; • questionnaires, diagnostic tests; • targeted observation, educational class inspections, talking before and after such inspections; • feedback on the tasks given 	



⦿ Actions developing the learning competence

Obviously, not all the studied entities invest in the development of the learning competence in their employees, in particular if they employ them for a specific task or based on a contract, so their cooperation is not permanent (employment contract). In such cases developing competences is up to coaches within self-improvement (so-called your own work).

On the other hand, in the entities that ensure developing competences in their employees actions such as organized internal trainings (mostly workshops), trainings in the workplace (when performing tasks supervised by a superior or a more experienced employee), mentoring elements (learning from internal experts) or educational walks and exchange of experience/best practice (where employees share their knowledge and become aware of the need to improve selected skills) dominate. Furthermore, in some of the studied organisations there are forms such as working within self-education, subject-based or problem-solving teams, when coaches determine on their own the priorities of their own improvement and plan tasks related to it (what is important, they do not feel they are forced to take on them). As far as the internal training programme is concerned, the respondents usually mentioned such thematic areas as improving internal processes, development of competences for a specific position, project management, international cooperation, solving conflicts, analytical skills or trainings on substantive contents of the services provided.

The respondents also stressed the need to motivate employees properly and continually to improve themselves, be the best possible in different aspects of their work. They indicated factors that affect employee efficiency and willingness to learn. These are, for example, group successes (celebrating successful projects), good atmosphere at work and team spirit, transparency and treating with respect, creating opportunities and place for innovations, generating new ideas, adjusting tasks and the scope of responsibilities to the level of the employee's knowledge and skills, as well as (if possible) to their preferences and strengths so that the tasks given to them were not beyond their capabilities but were a natural stimulator of the learning process, or finally providing regular feedback and measuring work satisfaction.

TRAINING ORGANISATIONS – methods/tools developing the learning competence (list)

Employees (coaches)

- self-improvement, self-education;
- organized internal trainings;
- trainings in the workplace;



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TRAINING ORGANISATIONS – methods/tools developing the learning competence (list)

Employees (coaches)

- mentoring elements;
- educational walks and exchange of experience/best practice;
- work within self-education, subject-based or problem-solving teams;
- incentive actions and creating proper conditions favourable for the learning process

NON-EDUCATIONAL ORGANIZATIONS (companies, workplaces – employers)

⌚ The importance of the learning competence

Like the previous two groups, in the organizations that are not directly related to education - according to the studied entities - the learning competence is extremely important for professional and personal development of every person. As the respondents pointed out, formal education provides only general knowledge in a specific field. If you want to keep up, you need to learn continually and improve your qualifications, and for this the discussed competence is essential. It is crucial for the employees who want to live up to the changing requirements of the labour market.

⌚ Areas/fields where the learning competence is particularly needed

According to the respondents the learning competence is particularly important in positions where work includes a range of complicated procedures, the use of specialist equipment and continuously requires to keep up with professional knowledge. This is also a very important competence in terms increasingly advanced technologies. Furthermore, continuously changing customers' needs and the need to keep adjusting to their expectations by organizations must be taken into account. That is why, according to the respondents, every employee needs the learning competence in everyday work.

⌚ Determinants of the obtained learning competence (how the learning competence is manifested)

As the respondents indicated, it can be seen if the employee has the learning competence in the speed of acquiring new procedures, new concepts, specialist terms, operating new equipment or new software as well as in the willingness and speed of improving the obtained professional



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qualifications (passed exams, obtained certificates, diplomas). This competence is also manifested in the ability to formulate proper questions if there are any doubts, suggesting efficient solutions for problems or the ability to accept a mistake and feedback.

⌚ Ways of verifying the obtained learning competence

Recruitment stage: At this stage of recruiting employees, the verification of having the learning competence - in the studied entities - is mainly based on a behavioural interview. Various competence tests are used. Candidates for a job are often given specific tasks to perform. Their ability and quickness to achieve the goal are assessed. Not only is the result itself important but also the way of achieving the solution (assessment of the way of thinking).

Employment period: During the period of employment the studied organisations - like the previous organisations - most frequently use systems of periodic evaluation based on competence profiles.

NON-EDUCATIONAL ORGANIZATIONS – methods/tools verifying the obtained learning competence (list)	
Employees	
<ul style="list-style-type: none"> • a behavioural interview with the candidate for a job, • competence tests, • a specific task to complete, • systems of periodic evaluation based on competence profiles 	

⌚ Actions developing the learning competence

In the studied entities the development of the learning competence usually includes organized internal trainings, then the knowledge and skills obtained in the working environment and training in the workplace are verified – learning through experience, when performing specific tasks supervised by a more experienced employee who leads through the whole process and helps develop competences.



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NON-EDUCATIONAL ORGANIZATIONS – methods/tools developing the learning competence (list)

Employees

- organized internal trainings,
- trainings in the workplace

- **Part 2. Critical thinking**

EDUCATIONAL INSTITUTIONS (universities, schools – so-called formal education)

⇒ The importance of the critical thinking competence

The critical thinking concept is perceived as a leading competence both in the process of transferring knowledge, sharing knowledge, and developing knowledge. It affects personal development, and in consequence the development of the entire educational institution. The critical thinking competence underpins doing analyses, drawing conclusions, and making right decisions. It was pointed out that one of the education objectives is to educate responsible members of society who are able to make right choices.

Based on the critical thinking competence, students can make appropriate choices about subjects, lecturers, text books, and educational materials as well as the offer complementing the curriculum related not only directly to education but also to being active in other areas of life. The critical thinking competence affects day-to-day and strategical decisions and is an essential condition to participate actively in specialization classes, it allows to participate in discussions about issues, select proper arguments, and look at the analysed issues from various perspectives.

All employees from educational institutions should have the critical thinking competence due to the efficiency and quality of work and the need to analyse constantly and implement applicable formal and legal regulations. This competence is very important for employees in manager positions or team leaders. It is a basis for the professional development of university teachers. It has been observed that the critical thinking competence may be confused with criticising the people around us (hypercriticism), which does not result in activities changing the reality.



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⦿ Areas/fields where the critical thinking competence is particularly desired

The areas where the critical thinking competence plays a determining role include:

1. research area – the critical thinking competence is a basis for the research process, the process of creative actions and studying literature critically, drawing detailed conclusions, creating aesthetic and substantially correct research projects, and it is a basis for the professional development of academics, critical thinking diminished a risk of introduction the ideas (projects) that have no use for the institution;
2. learning/teaching area – a critical analysis of learning and teaching processes and curricula, an essential milestone in the education process, allows to continually update and critically verify the transferred knowledge and stimulate the development of this competence in students;
3. area of educational institution management – the competence of critical thinking is a basis for strategic management and strategic decisions, implementing innovations, controlling, it has a great impact on planning the current operation and development as well as on complex situations, such as the employee advises the university management in which development possibilities do exist and how they could be used in the next five years; furthermore, it allows to take up actions in accordance with individual and institutional interest, and it leads to a situation where decisions and actions are in accordance with logic, rules and expected (desired) effects.

⦿ Determinants of the critical thinking competence (how the critical thinking competence is manifested)

The critical thinking competence in academics is manifested during a discussion in universities' collective bodies, which results in resolutions passed by these bodies that shape the framework of university operation. It is reflected in the quality of the created solutions and the decisions made. It allows to justify the advantages and disadvantages of possible development possibilities. It is also reflected in the way of analysing signals from the environment – from the university's authorities and administration, internal and external stakeholders. It is noticeable in the ability to handle tasks autonomously, autonomous decision-thinking and generating ideas.

The critical thinking competence in university teachers is manifested in the way of arguing during seminars, conferences, academic or teaching discussions and in using the current examples of events for analysing scientific phenomena so that students could have an opportunity to combine theoretical academic knowledge with the reality that surrounds them. Furthermore, it is shown in the objectivity of assessing education outcomes, the ability to respond to changes and the critical assessment of your own decisions.



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Students prove they have the critical thinking competence if they can modify their comments, if they can change their perspective on one issue, if they can give good arguments on their own, look for and find alternative solutions, if they have the ability to elaborate a well-founded personal view on a subject and can discuss a certain topic in tests or written/oral exams.

⦿ Ways of verifying the obtained critical thinking competence

The ways of verifying the critical thinking competence in academics and students were listed in the table below. The ways of verifying the critical thinking skill in administrative employees were not specified.

EDUCATIONAL INSTITUTIONS – methods/tools for verifying the obtained critical thinking competence (list)	
Students	Academics
<ul style="list-style-type: none"> • assessment of the course and outcomes of the tasks performed • control works and exams 	<ul style="list-style-type: none"> • publications of academic works in good and very good academic magazines • obtaining another academic title in a specific period • periodic assessment of the academic and inspections • questionnaires for students • results of organizational works

⦿ Actions related to the development of the critical thinking competence

The critical thinking skill is not shaped in an organized or formalized way. It is assumed that the academic staff by definition has this skill and the use of mechanisms/procedures is not necessary. All actions named by the respondents were listed below.

EDUCATIONAL INSTITUTIONS – methods/tools related to the development of the critical thinking competence (list)	
<ul style="list-style-type: none"> • mentoring, coaching, group work (brainstorming) • participation in discussions about possible approaches to strategic tasks and in the process of making investment decisions in projects 	



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TRAINING ORGANISATIONS (language and coaching schools, continuing education centres, etc.)

⦿ The importance of the critical thinking competence

The training organisations included in the research perceive the critical thinking competence as important because of the accuracy of decision-making and the key element for performing the profession of teacher for continuing education. It was mentioned, however, that it is not as important as the learning competence, although it is necessary for all employees from training organisations. Basic assumption is to provide needed knowledge, skills, attitudes and awareness in the all work fields related with the organization. When employees are fully informed and confident about processes and tasks related with their position, then they are asked to perform their work autonomously, with particular feature of critical thinking. They have to critically assess all factors (precautions, problems anticipation, decision making), set up the solution and opinions and then to discuss it. It was pointed out that teachers and coaches are autonomous in the fundamental part of their work – so they have to reflect on their actions, objectively assess situations, taking into account their uniqueness as well, they have to make sensible and good decisions.

⦿ Areas/fields where the critical thinking competence is particularly desired

The training organisations that participated in the research considered the critical thinking competence to be particularly desired in looking for new solutions on the market, consulting projects in companies, proper work planning and efficient tasks performance, preparing training offers, and in the process of providing training services, to handle tasks individually, review ideas and search for opportunities, by making independent decisions, by quick reactions, as conditions and the environment changed, in interchangeability and by reflection. Critical thinking plays a major role in assessing the education outcomes of the training participants. It is important for providing feedback and working groups.

⦿ Determinants of the critical thinking competence (how the critical thinking competence is manifested)

The employees of training organisations who have the critical thinking skill take into account a broad analysis perspective when preparing solutions, they are able to question and not to accept solutions that are substantively doubtful. Based on the critical thinking skill, they verify actions and modify programmes depending on needs, they are able to make effective decisions and notice occurring relationships, which makes drawing accurate conclusions easier for them. Their critical thinking competence is also manifested in the form of new ideas, topics, ways of solutions, peer-to-peer discussions and problem solving, by open mindedness and out of the box thinking.



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⦿ Ways of verifying the obtained critical thinking competence

The Competence Assessment is rarely used in employees (one case) - an instrument from the field of personnel management, allowing an individual and mainly objective assessment of persons, relating to existing or less strongly developed competences. It gives statements for possible professional developments of this person, depending on existing potentials and given frame conditions. On the other hand, the assessment of written works is sometimes used in training participants, critical thinking is verified in discussions. Other ways of verifying critical thinking competences were not indicated.

TRAINING ORGANISATIONS – methods/tools for verifying the obtained critical thinking competence (list)	
Training participants	Employees
<ul style="list-style-type: none"> • assessments of written works and discussions 	<ul style="list-style-type: none"> • competence assessment

⦿ Actions related to the development of the critical thinking competence

The named actions were listed in the table below. The same methods that are used for developing the learning competence were specified many times. These methods have already been discussed in this work in Results/point 1. In one of the training organisations an assumption was made that the critical thinking competence depends on the personality in accordance with DiSC Classic 2.0 methodology.

TRAINING ORGANISATIONS – methods/tools related to the development of the critical thinking competence (list)	
Employees	
<ul style="list-style-type: none"> • trainings, workshops, courses, evaluation of selected areas, self-assessment, auto-evaluation of classes, learning from external experts, exchanging best practice, feedback from supervisor implemented on the work 	



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ORGANIZATIONS NOT RELATED TO EDUCATION (companies, workplaces – employers)

⦿ The importance of the critical thinking competence

Among the studied organizations that are not related to education, the critical thinking competence was also considered important for the efficiency and quality of performed work. It was stated, for example, that critical thinking is very important because many of the employees tend to work individually and also in different time-zones which makes it difficult to get one-on-one interaction right-away. Furthermore, it was stated that it is an essential skill because we require innovations in the process and outcomes. It is also needed to achieve professional success.

⦿ Areas/fields where the critical thinking competence is particularly needed

For organizations not related to education, the critical thinking competence is used in sales and shopping activities, in particular in marketing since the skill of reflecting and taking right and accurate actions, for example, introducing marketing actions etc. has a great impact on sales outcomes and therefore the company's financial results. This competence is also necessary to handle tasks individually, review ideas and search for opportunities and in the initial design of the new projects and inclusion of all partners in the process.

⦿ Determinants of obtaining critical thinking (how the critical thinking competence is manifested)

According to the respondents critical thinking is reflected in the ability to notice the current situation on the market, competitors' actions, the company's financial opportunities, and select suitable and economically justified solutions for that. Critical thinking is reflected in the decisions made if the employee can identify problems, analyse their causes, find and implement solutions, make the right decision, manage changes and the communication process, and be independent at work.

⦿ Ways of verifying the obtained critical thinking

Two ways of verifying the critical thinking skill were named: employee feedback and feedback from supervisor implemented on the work.

ORGANIZATIONS NOT RELATED TO EDUCATION – methods/tools for the verification of the obtained critical thinking competence (list)

- employee feedback and feedback from supervisor implemented on the work



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⦿ Actions related to the development of critical thinking

The organizations included in the research use training and coaching employees on problem solving through talent management programs / projects, theoretical training followed by exposure to real life problem solving through participation in projects where employees are able to learn through firsthand experience. The aim of the actions is to make the employees aware of their strengths and weaknesses so that they can trust their own judgement and know when to use it. It is important that the actions should allow the employees to gain self-confidence and make decisions on their own. It was also stated that there is a lack of targeted and structured actions of this kind.

ORGANIZATIONS NOT RELATED TO EDUCATION – methods/tools related to the development of the critical thinking competence (list)

Employees

- training and coaching employees on problem solving through talent management programs/projects
- theoretical training and participation in projects

• Part 3.Problem solving

EDUCATIONAL INSTITUTIONS (universities, schools – so-called formal education)

⦿ The importance of the problem solving skill

The problem solving skill is considered by all the institutions included in the research to be important or very important in each employee group. It is a basis for research work. The academics who do not have the problem solving skill do not achieve professional success and have to give up their job. In relation to library and administration employees, the skill of problem solving is becoming more and more important due to the increasing technological development. It allows to do professional duties correctly and overcome obstacles. Typical problems are solved automatically, while complex problems require advanced skills that should be improved. The process of university education includes learning this skill by students.



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⦿ Areas/fields where the problem solving skill is particularly desired

The respondents said that the problem solving skill plays a significant role in all the areas:

1. research area – solving research and application problems, keeping autonomy;
2. administration and management area – solving both routine/conventional problems and unique/individual ones; applying for additional funds for the operation of institutions and preventing organizational, technical, and social problems; the lack of the problem solving skill in employees in management positions results in more problems in the entire institution;
3. learning and teaching area – carrying out workshops and seminars, working with a group, preparing teaching materials such as case study.

⦿ Determinants of the problem solving skill (how the problem solving skill is manifested)

This skill is manifested in efficient decision-making and the quality of decisions both in terms of routine and unique processes. Its important aspect is the ability to predict the results of the decisions made. This skill is also present if during the conduction of daily work, the obstacles are dealt with immediately or there is a strategy to overcome them if they are more complex one. In academics this skill is reflected in the number of academic works published in good and very good magazines from the ISI Master Journal List, where a solution of a significant scientific or engineering problem was presented. The students who have this skill are independent and convinced that their choices are right.

⦿ Ways of verifying the obtained problem solving skill

The representatives of some institutions stated that they did not notice that any special methods of verifying the problem solving skill were used. It was noticed that the attitude to this skill depends on the organizational culture of an institution. The verification methods named by the respondents were listed in the table below.

EDUCATIONAL INSTITUTIONS – methods/tools for verifying the obtained problem solving skill (list)	
Students	Academics
<ul style="list-style-type: none"> • during classes: looking for and presenting possible problem solutions, tasks allowing to improve this skill 	<ul style="list-style-type: none"> • effectiveness of the decisions made and the solutions found • observing employees and the actions they take



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EDUCATIONAL INSTITUTIONS – methods/tools for verifying the obtained problem solving skill (list)	
Students	Academics
	<ul style="list-style-type: none"> meetings of task teams – exchanging experiences and looking for solutions periodic employee assessment – the number and quality of publications

⌚ Actions related to the development of the problem solving skill

EDUCATIONAL INSTITUTIONS – methods/tools related to the development of the problem solving skill (list)	
<ul style="list-style-type: none"> discussions during which solutions are discussed and their disadvantages and advantages as well as the solutions implemented earlier with their effectiveness popularization of examples of good solutions meetings and exchanging experiences with representatives of other institutions regular meetings of interview groups to work with individual colleagues troubleshooting by using the method of collegial advice and to monitor their successful application periodic presentation of seminars, speeches at national and foreign conferences indirectly by participating in actions aimed at developing work standards, the institution's vision and strategy motivating employees to solve problems on their own 	



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TRAINING ORGANISATIONS (language and coaching schools, continuing education centres, etc.)

⦿ The importance of the problem solving skill

The problem solving skill was considered important in the context of rapid changes in the world that surrounds us and corresponding in a direct way to innovative and creative thinking. It was mentioned that it is significant mostly for small organisations and organisations operating within projects. If the employees are capable to solve problems immediately on their own individually, according set rules and organization values, then the work can run smoothly and successfully.

⦿ Areas/fields where the problem solving skill is particularly desired

This skill is desired both in individual and group work. Solving problems in a group, assertive and open communication, analytical and creative thinking is a basis for efficient employee cooperation. The forms and quality of cooperation in teachers/coaches determine achieving the objectives set by the school. Teachers/coaches are autonomous in performing different tasks and they find themselves very frequently in a difficult, problematic situation – so they need to have the skill of solving problems individually.

⦿ Determinants of having the problem solving skill (how the problem solving skill is manifested)

This skill is observable in particular in rapid changes and the need to respond to them. In organisations carrying out projects audits and the need to provide additional documentation or reports are examples of such situations. This skill is manifested in the way of acting (for example in efficient organization management), also in the ability to fulfil organisational objectives and analyse regional and local context to have an insight into the strengths and weaknesses and also into the opportunities and threats posed by the society, businesses and labour markets. In employees it is reflected in high flexibility, analytical and creative thinking, the ability to think conceptually, have a critical attitude to the suggested solutions, the ability to communicate in an assertive and efficient way, look for new solutions on the market and implement changes. Also, in the ability to work with the participants of trainings/students with specific needs.



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⦿ Ways of verifying the obtained problem solving skill

The problem solving skill is verified in the following ways:

TRAINING ORGANISATIONS – methods/tools for verifying the obtained problem solving skill (list)

- observing the employees, monitoring their work and assessment interviews, feedback of trainees
- finding new solutions that are good on the market by employees
- ability to use the solutions worked out in practice and implement the suggested improvements
- discussions on problems – the ability to communicate efficiently, draw conclusions from experiences, suggest solutions, plan and predict consequences of actions
- consulting projects in companies

⦿ Actions related to the development of the problem solving skill

The training organisations that participated in the research carry out a range of actions related to the development of the problem solving skill among their employees:

TRAINING ORGANISATIONS – methods/tools related to the development of the problem solving skill (list)

- project management
- problem solving teams – a discussion at meetings on the suggested solutions
- risk assessment linked with regular communication and explaining the rightness of approaches and undertaken actions
- education, courses, and trainings
- workshops in accordance with lean management methodology involving the identification and reporting of existing problems, analysing them and preparing solutions
- tutoring, peer learning, coaching
- cooperation with external stakeholders – identification of needs and expectations, determining priorities and tasks



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TRAINING ORGANISATIONS – methods/tools related to the development of the problem solving skill (list)

- project consultation in companies
- analysis and dissemination of good and well-proven solutions
- working and learning from external experts
- self-improvement

ORGANIZATIONS NOT RELATED TO EDUCATION (companies, workplaces – employers)

⌚ The importance of the problem solving skill

This skill is very important in the context of new challenges and project work. Employee should have the ability to overcome barriers and difficulties, respond to current problems in order to be able to fulfil the organization's determined objectives. It is essential because the organization was built to solve problems of a different stakeholders, it is part of the mission and vision of the organization.

⌚ Areas/fields where the problem solving skill is particularly desired

The skill of solving problems is particularly desired in all areas, and in particular in project management, in emergency situations such as an incorrectly made task, an incorrectly prepared product for a customer. Furthermore, this skill is very important in looking for new solutions on the market, in consulting projects in companies, in providing quality service to clients which are not what others can offer, in working with very different clients meaning different cultures, languages and needs. Several problems are related to communication and different requests which implicate contact with different cultures and situations.

⌚ Determinants of having the problem solving skill (how the problem solving skill is manifested)

The employees who have the solving problem skill have a wide group of trusted customers who come back to them, and therefore they make that the financial results and bonuses of such employees are better. Furthermore, in positions where you do not contact the customer directly, employees that can solve problems demonstrate their independence and creativity. Some employees are able to successfully overcome / negotiate through barriers and get the job done. The employees who have this competence can make a good decision and solve a problem on their own when their



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superiors are absent, they develop some kind of independence at work. They are able to show initiative pro-actively engage in solving the problem. It is mainly attitude drive process and do not see everything as problem but rather as chance.

⌚ Ways of verifying the obtained problem solving skill

The representatives of the organizations covered by the research named explicitly two ways to verify the skill of solving problems in employees.

ORGANIZATIONS NOT RELATED TO EDUCATION – methods/tools for verifying the obtained problem solving skill (list)

- observation of employees when they are doing professional tasks
- indicating their weaknesses and strengths

⌚ Actions related to the development of the problem solving skill

Many actions are carried out to allow employees to improve their problem solving skill. They were listed below.

ORGANIZATIONS NOT RELATED TO EDUCATION – methods/tools related to the development of the problem solving skill (list)

- workshops
- indicating the way of collecting the needed information as a basis for individual decisions and solving problems
- training and coaching employees on problem solving through talent management programs / projects
- theoretical training must be followed by exposure to real life problem solving through participation in projects where employees are able to learn through firsthand experience, this may not be possible for 100% of the employees, but this should certainly be done for employees with potential



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- **Part 4. Managing your own learning process**

EDUCATIONAL INSTITUTIONS (universities, schools – so-called formal education)

➲ The importance of managing your own learning process

The representatives of the studied institutions considered the managing your own learning process to be the key one. It was stressed that due to its universal character it is assumed that every academic, administrative or technical employee has it, so do students. University teachers need to have this skill of managing their own learning process because the advance of knowledge, communication technologies and teaching methods forces them to continually improve their competences. Administrative employees need to have this skill to improve research process service, the teaching process as well as the institution's equipment concerning audio-visual and communication equipment, and the quality of administrative and organizational service. Students need to have the skill of managing their own learning process in order to gain the knowledge, skills and competences described in the curriculum in a specific period. Without this skill, without the competence of managing their own learning process, they will not be able to obtain the required knowledge, skills and competences, or they will obtain them at insufficient level.

Thus this skill is a condition sine qua non of working in higher education entities and a basis for professional development. Furthermore, it allows for efficient self-development in research and teaching work, it increases the efficiency of work and protects against burnout. Managing your own learning process is also important in the process of exchanging experiences and materials with other employees, preparing tests and exams, teamwork, and evaluating processes. This skill should be developed continually because of social changes and new teaching theories. It was noted that this skill is required to a less extent when doing day-to-day routine tasks.

➲ Areas/fields where the skill of managing your own learning process is particularly desired

The skill of managing your own learning process is important for all activity areas of educational institutions: in research work, teaching, learning, managing the university's administrative environment, and organizing the operation of libraries. This skill ensures professional development of all employees, provides the performance of the curriculum, it is part of perseverance in a long-lasting educational process, it allows to look for and find new teaching methods, update knowledge and materials.



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It is a necessary condition for group development, it is very useful in obtaining external funding – each of the announced competitions is different and has specific requirements, which makes that one needs to constantly learn a new logic of competitions. It concerns both academics who want to obtain research grants and administrative employees that support them in application procedures.

⦿ **Determinants of the obtained skill of managing your own learning process (how the skill of managing your own learning process is manifested)**

The results of the educational process prove that students have learnt the skill of managing their own learning process. In academics this skill is manifested in the results of their research, point value of their publications, full implementation of current courses and curricula, the scores they obtain in questionnaires for students, and other forms of evaluating teaching work. Furthermore, it is manifested in an open attitude to new challenges, the fact of having the present state of knowledge, readiness to develop professionally and increase their competences, in the satisfaction of conducting the tasks given, sense of self-development and motivation for further development. As for administrative and library employees, the determinant of having the skill of managing your own learning process is efficient operation of their organizational units (administration and the library).

⦿ **Ways of verifying the obtained skill of managing your own learning process**

The ways of verifying this skill named by the respondents were listed in the table below.

EDUCATIONAL INSTITUTIONS – methods/tools verifying the obtained skill of managing your own learning process (list)

- assessment of successes in life, results and the course of professional career
- assessment of the quality and regularity of performed tasks
- assessment of the state of gained knowledge
- active search for and participation in forms of professional development such as workshops, trainings, courses
- interviews and observations
- exams (students and pupils)



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⦿ Actions developing the skill of managing your own learning process

The majority of the organisations that participated in the research do not provide organized and formalised actions of this kind. The following reasons for the lack of these actions were given:

- this skill is a condition of getting a job – the academics they employ have the highest qualifications and desired characteristics, including the skill of managing their own learning process;
- it is assumed that corporation culture makes administrative and technical employees to acquire the skill of managing their own learning process;
- each employee is personally responsible for this skill.

Activities carried out by some of the institutions were given below.

EDUCATIONAL INSTITUTIONS – methods/tools developing the problem-solving skill (list)

- trainings and courses
- internships and tutoring
- developing new material
- intangible forms of praise

TRAINING ORGANISATIONS (language and coaching schools, continuing education centres, etc.)

⦿ The importance of managing your own learning process

The skill of managing your own learning process was considered important or very important almost in each of the organisations. It was found, for example, that everybody needs to learn to be part of the society. For the management, the skill of managing their own learning process is crucial because it allows to achieve suitable results and ensures a good position of the organisation on the market. Furthermore, it allows to transfer new knowledge and skills to other employees and implement good practices. It allows to manage projects and knowledge, i.e. learning new tools,



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methods, new approaches and skills. Academics improve their competences with this skill, they can learn when struggling with the diversity and multitude of tasks and requirements.

Only in one organisation the skill of managing your own learning process was considered less important because the management supports its employees in developing their learning path and suggests what they should learn.

⦿ **Areas/fields where the skill of managing your own learning process is particularly desired**

The management uses this skill in managing teams, motivating employees and mentoring. It allows to provide the continuity of work, good motivation and proper attitudes among employees. It prepares coaches for carrying out a training/workshop/coaching and is a basis for developing the competences of an efficient coach. This skill is used for comparing research results, planning the learning process, identifying resources, time management, increasing efficiency and performance. It is useful in the process of organizing schedules and training programmes, preparing training materials and evaluating the training process. Also, it is needed in project management, abstract and analytical thinking, combining ideas and implementing teaching innovations. It also plays a big role in cooperation with other people, regardless of their origin and culture, makes respecting diversity and constructive interactions easier, especially if it is difficult to implement an issue.

⦿ **Determinants of the obtained skill of managing your own learning process (how the skill of managing your own learning process is manifested)**

People who have the skill of managing their own learning process can efficiently manage their own time, determine the scope of knowledge that is essential to gain in a specific time. They can estimate their own costs and expenditures related to the learning process, both financial ones and those related to the amount of work and involvement, and estimate the time in comparison to the benefits they are going to have when they gain new knowledge or new skills. They can also evaluate the learning process. Their distinctive feature is their own initiative in gaining knowledge, looking for new opportunities to learn, and finding opportunities to learn good practices in their environment, both in the professional and private one. They can also perform the training process in an efficient way.

⦿ **Ways of verifying the obtained skill of managing your own learning process**

The ways of verifying the obtained skill of managing your own learning process given by the organisations were listed below.



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TRAINING ORGANISATIONS – methods/tools verifying the obtained skill of managing your own learning process (list)

- assessment of current academic and business achievements
- applying for trainings
- assessment of employee initiative in gaining and updating knowledge

⌚ Actions developing the skill of managing your own learning process

Not every organisation takes actions developing this skill in their employees. Some of the organisations assume that employees, for example coaches with extensive experience, can efficiently manage their own learning process by themselves. Other organisations do not have funds for this kind of actions and leave the development of this self-improvement skill to their employees and exchanging experiences among them. Other actions were presented in the table below.

TRAINING ORGANISATIONS – methods/tools developing the skill of managing your own learning process (list)

- superiors supporting their employees in developing their own learning path and showing them what they should learn additionally
- identification of development areas during evaluation interviews and based on them planning employee professional development
- self-improvement and exchanging experiences with internal experts (other employees from the organisation)
- assessing the training needs of employees (teachers) and adjusting their development to the results of the assessment
- creating conditions for making decisions on the preparation of trainings and workshops independently
- creating space for mutual observation and opportunities to participate in education and self-education
- working groups



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NON-EDUCATIONAL ORGANIZATIONS (companies, workplaces – employers)

⦿ The relevance of managing your own learning process

All employees should understand the importance of this competence and continually develop it. It is particularly important for people who work in unique professions because they have a small choice of trainings and courses available on the market. The skill of controlling the level of your knowledge on your own as well as updating it intentionally and systematically, for example, in terms of technological novelties, is very important. This skill is also essential for people in management positions and those who are responsible, for example, for controlling the quality of several projects at the same time that are in different areas and at different stages of implementation. The skill of obtaining appropriate knowledge in a short period, from different fields, on various processes, facilitates preparing plans for corrective actions, improving the quality of the whole process, and can determine the success of a project. Managers responsible for groups of people and working teams have to update their knowledge continually and efficiently so that they could transfer it to other employees and train their teams in the best way possible. The skill of managing your own learning process is also very important in the fields where very rapid changes take place, which entail the necessity to continually update knowledge.

In one organisation the skill of managing your own learning process was considered less important because the management supports its employees in developing their learning path and suggests what they should learn.

⦿ Areas/fields where the skill of managing your own learning process is particularly desired

According to the representatives of non-educational organizations this skill is particularly desired in narrow and unique fields of specialization due to a very limited offer of forms of professional improvement that exist on the educational market. It is also essential in European Union policy, communication and consulting services due to continuous changes and new customers with diversified needs. Customers may provide challenges to the organization that were unknown before or set time limits unknown before to complete a task. This skill is desirable when the employee is confronted with new tasks and has not fully developed the ways to perform them yet. It is also particularly desirable in employees who train others because they have to learn how to teach efficiently and plan the learning process of other people.



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⦿ Determinants of the obtained skill of managing your own learning process (how the skill of managing your own learning process is manifested)

This skill is manifested in the scope of the knowledge that employees share with others and in the results of cooperation with customers. It is also expressed in proposals of non-standard solutions and initiatives taken by employees to increase their knowledge through trainings. Some of them crave for knowledge, they are always ready to learn and experience new things even if it means to go beyond the comfort zone. With it, such employees are able to manage changes in a better way. They can make appropriate analyses and draw conclusions from them, which is seen in the improvement of a situation.

⦿ Ways of verifying the obtained skill of managing your own learning process

The ways of verifying this skill indicated by the organizations were presented below.

NON-EDUCATIONAL ORGANIZATIONS – methods/tools verifying the obtained skill of managing your own learning process (list)

- results of cooperation with customers
- proposals to solve issues in a non-standard way
- individual initiative to increase the scope of your knowledge and participation in various forms of education
- skill of managing changes and implementing new efficient solutions

⦿ Actions developing the problem-solving skill

Non-educational organizations carry out a range of actions aimed at developing problem-solving skills in employees.

NON-EDUCATIONAL ORGANIZATIONS – methods/tools developing the skill of managing your own learning process (list)

- training and coaching employees in solving problems within the programme of managing talents, projects, etc.
- motivating employees to increase continually their knowledge, improve their competences and complement the set of their skills
- superiors supporting their employees in developing their learning path and showing them what they should learn additionally



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NON-EDUCATIONAL ORGANIZATIONS – methods/tools developing the skill of managing your own learning process (list)

- encouraging employees to present different options of solutions if there is a challenge
- self-improvement based on feedback

• Part 5. Recommendations of respondents regarding solutions/tools/methods of diagnosing and developing of the competence of learning

EDUCATIONAL INSTITUTIONS (universities, schools – so-called formal education)

⇒ The methods of diagnosing of the learning competence

The research respondents concordantly referred to regular observation and evaluation of the learning competence and the most efficient ways to diagnose the level of this competence. It was addressed as best both for students and academics. For students, observations should be performed during the in-class activities by the teacher and assessed according to the individual capacities. The observation of academics was considered as a part regular employee assessment e.g. yearly.

EDUCATIONAL INSTITUTIONS – methods of diagnosing of the learning competence (list)

Students	Academics
<ul style="list-style-type: none"> • during classes: giving enough time to all students to participate in the discussion and debrief in order to assess them, • individual interviewing, cases and tasks, tests. 	<ul style="list-style-type: none"> • observation of the quality and results of the work performance, • development of a progress monitoring and motivation system, • individual interviewing.

⇒ The tools for developing of the learning competence

The educational institutions addressed a number of recommendations, among those primary focus was given to individualisation of the learning process according to the needs and capacities of each student. The individual approach should be implemented through a complete system of



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competence development including complex evaluation of the progress and motivation activities supporting the willingness of the student to continue and progress with further activities.

The respondents also focused on motivation and development of the university teachers in order to ensure their readiness and capability to implement various actions aiming at supporting the development of student competences. The ability to organize and implement the process of students' learning skills development is considered as a potential point towards which a university teacher should be evaluated in his/her work performance.

EDUCATIONAL INSTITUTIONS – tools for developing of the competence of learning (list)	
Students	Academics
<ul style="list-style-type: none"> • activate students during the university education time, • offer more individualised forms of learning and skills development, • create inclusive and tolerant learning environment, enable learning on mistakes, • offer workshops on different aspects of the process of learning, • give more time in workshops to enable peer-to-peer learning, • motivate to participate in professional trainings and workshops, • perform assessment and evaluation of progress, • present a high level of own learning skill by academics, • offer more interactive methods of learning during workshops and classes by university teachers. 	<ul style="list-style-type: none"> • offer trainings and workshops on the development of learning skills, • develop a regular evaluation of progress supported by a complex motivation system, • include the learning competence as one of the points assessed in the yearly employee's evaluation,



TRAINING ORGANISATIONS (language and coaching schools, continuing education centres, etc.)

⦿ The methods of diagnosing of the learning competence

According to respondents representing training organisations, the best way to diagnose the level of learning skill development is to observe them during their activities. As an example: new employees are observed how fast they learn their responsibilities in new workplace, how soon they become fluent in new activities and stop needing constant support from others colleagues.

⦿ The tools for developing of the learning competence

Numerous tools and methods were presented as recommendations for development of the learning competence.

TRAINING ORGANISATIONS – tools for developing of the competence of learning (list)	
Students	Academics
<ul style="list-style-type: none"> • motivate to individual work according to individual's capabilities, • organise meetings with business professionals and analysing real business cases, • define high expectations from students, • base on the up to date research results, • use activating work methods, motivation to creative thinking, referring to own experience and knowledge, group discussions, • implement appreciation to involvement and just feedback, • create positive learning atmosphere based on respect and learning curiosity, • define well study profile, program competence and learning outcomes, • motivate to make connections between knowledge and its application into the real life. 	<ul style="list-style-type: none"> • use activating work methods, motivation to creative thinking, referring to own experience and knowledge, • implement appreciation to involvement and just feedback, • create positive learning atmosphere based on respect and learning curiosity, • communicate with employees, set peer-to-peer and transparent environment, • perform regular evaluation with space for dialogue, • maintain effective exchange of knowledge between universities and other sectors of business, • ensure employees hold the responsibility for their own professional growth.



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Apart from focusing only on aspects allowing to develop the learning competence, the respondents defined forcing instead of proper motivating as most harmful for the learning process. They also referred in this place to providing tasks not adjusted to the real level of participants (too easy or too difficult), as well as failure in development of the active and independent learning atmosphere, where failure is a part of the process.

ORGANIZATIONS NOT RELATED TO EDUCATION (companies, workplaces – employers)

⌚ The tools for developing of the learning competence

Respondents representing organisations not related to education listed a number of tools and methods which from their perspective are useful in the process of developing of the learning competence. These methods are based on the activation of the learner and transferring the responsibility over the learning on the learner. The learning should be based on activating and interactive methods of work and a system of motivating and evaluating the learning process. Trainings of soft skills are considered as those that show people their capability to develop their learning competence and success during the training course increase the level of motivation to continue the work and further development. New challenges should be presented with the goal of self-development and not only be related to the usual work tasks. Feedback should motivate employees' development and be constructive. Feedback should be regular – if necessary even daily and new aims/tasks should be assigned on a regular basis according to the completion of previous ones.



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III] SUMMARY OF IN-DEPTH STUDIES CONDUCTED BY BEST INSTITUT FÜR BERUFSBEZOGENE WEITERBILDUNG UND PERSONALTRAINING GMBH (AT)

The interviews were conducted with 22 people, representing different organisations of higher education, vocational education and training as well as consulting and labour market services.

9

• Educational Institutions

5

• Training Institutions

8

• Non-educational Organizations

The interviews were carried out between March and April 2016 and took place face-to-face, where it was possible. As a part of the interviews only could be conducted in written form, the guidelines had to be slightly adapted.

The key findings of the surveys are that a great majority of respondents state that all the skills are important to very important for an organisation and for employees to have them. Respondents agree that the “learning to learn” ability is very important, due to quick changing requirements. As many of the organisations are in the educational field and deal with learning by the nature of their organisation, it is also very important for employees to have the skill. Further, many respondents state, that they are needed in every areas/categories/actions of an organisation. Some specified, that the skill is important to process new information, new media but also in training and research.

In some cases, trainings for skill development are provided, but in general, independent work style and pro-activeness are observed by respondents. The skill is also recognised through a person’s work outcomes and personal attitude. Also, customer’s feedback is mentioned.

In recruitment processes, formal education, certification and experience count. Further, some organisations use different ways for assessing learning ability, i.e. through tests, practical exercises or probationary period (day or month) to evaluate their way of working.

In some organisations, trainings on soft skills or in combination with other trainings are conducted. Depending on the size of the organisation, the trainings are internal or external. Methods used are i.e. group work on cases or self-assessment. Some also state that they don’t use mechanism for skill improvement.

Critical thinking is also assessed as an important skill for employees. Again, all areas and actions of a company are concerned. However, the statements are differencing ranging from “creative parts of an organisation” over interpersonal relations (Internal: teamwork and with clients:



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counselling etc.) to management area (often mentioned). It is recognised through questioning, work style and personal attitudes. However, many organisations don't use special mechanism for skill improvement, as it is not considered as priority.

Also, critical thinking and problem solving are associated by respondents. The latter is a very important skill for employees to have, as it can be seen as a transversal skill necessary for difficult situations and tasks.

It is recognised through problem analysis, evaluation, and decision making and reacting. Also, preparing a solution is welcome. In some cases, tasks related to skill development are offered, but the majority of respondents state that there are no specific mechanisms to improve the skill of problem solving.

From their experience, respondents state that skill evaluation at an early stage (i.e. recruitment) as well as internal communication and support of employees are beneficial solutions for skill development.

The majority state that they are interested in participating in courses on skill development, as it is estimated to be beneficial for themselves and for the company. Criteria are inter alia, that courses should be close to labour market needs and the structure and contents of the training. Further, it is pointed out, that training programmes in general are always a matter of money.



[III] SUMMARY OF IN-DEPTH STUDIES CONDUCTED BY UNIVERSITY OF PANNONIA (HU)

18 in-depth interviews were concluded by four educational and professional experts from the University of Pannonia. All the interviews were carried out mainly face-to-face or via Skype and we covered all fields of organisations searching for good practices. Within the three main types of organisations, non-educational, educational, training organisations, we managed to interview multinational companies, language schools, PLCs, secondary & elementary schools, consulting companies, etc.

7

• Educational Institutions

5

• Training Institutions

6

• Non-educational Organizations

The in-depth studies went off in February, March and beginning of April and the scripts and good practices were summarized in a case study template on the basis of the 3 basic skills; critical thinking, problem solving and managing learning processes. The outcome of each skills are brief summaries.

Critical thinking: All interview partners identified critical thinking as one of the key competences that is necessary for the academic career. This skill is built in and encouraged in the performance system, and there are methods used in everyday life where employees can practice and implement critical thinking such as: Lean process, lost hunting, assertive communication, idea boy, coaches and trainings. The fact is, that each respondent defined critical thinking similarly, but apply different methodology to trigger and practice. Also, it is crucial for planning and carrying out project tasks. However, carrying critical thinking too far could be a disadvantage in multinational environment.

Problem solving: Some representatives of organizations cannot really separate critical thinking from problem solving, and other respondents only could when they were reminded to try to define separately. Each mentioned problem solving techniques, such as 5S, KAIZEN, standardisable and ad-hoc problem, problem-analysis-solution-feedback cycle. Attitude toward problems was emphasised as the most important thing to develop.

Managing learning process: This skill seemed to be the hardest to define and the more diverse at first, but then nearly all respondents linked this to their existing career or individual development plan, training academy where colleagues can learn from each other, or how it is present in the performance system. They all thought that managing own learning path has something to do with work-life balance, lifelong learning and career goals. This competence includes time management skills, self-knowledge and reflective mind-set.

Those organizations who are conscious have a very good performance management system where the three skills are built in, assessed, developed and checked.



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[IV] SUMMARY OF IN-DEPTH STUDIES CONDUCTED BY OPEN UNIVERSITEIT NEDERLAND (NL)

An assistant professor from Open Universiteit Nederland (OUNL) conducted three in-depth interviews in the month of March and April, 2016: two face-to-face interviews and one SKYPE interview. The three institutions were identified and selected for the LELLE in-depth study as they provided a good representation of the current instructional programmes, as well as career services offered at higher educational institutions. For the educational institution in Finland, a visit to the premises was carried out and this helped to facilitate the SKYPE interview and understand the importance of the physical set-up in developing these core competences. All three institutions (two in the Netherlands; one in Finland) adopted an innovative approach to equip and to empower their graduates for the global market place.

1

• Educational Institutions, The Netherlands

2

• Educational Institution, Finland

The findings of the in-depth interviews seek to inform the LELLE project on potential methods both to develop and to evaluate the three core skills identified, i.e., critical thinking, problem-solving and managing one's own learning. As the methods for training, development and evaluation of these skills/competences are specific to the organisational culture, vision, mission and the programme objectives, the findings will be reported in two main parts: part one will focus on the innovative approach in developing the three core competences at two higher educational institutions, Finland and the Netherlands respectively, and part two will present the training mechanism embodied in the career services programme in one higher educational institution in the Netherlands.

Part 1: Innovative approach at two higher educational institutions, Finland and the Netherlands

This university in Finland offers a unique platform for a new kind of teaching: creating an ideal physical and mental environment to foster fruitful and dynamic interaction between students, researchers and professional practitioners. Students' age ranges between 20 to 25 year old and they come from three fields: Designer art, Architecture art, Business and technology. The innovative approach adopted in this university aims to facilitate international university collaboration beyond academic boundaries.

The new kind of teaching involves problem-based courses and project-based learning in the interdisciplinary field, which usually begins an open problem.



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Here, teachers are more 'passive' agents of learning, i.e., taking on the role of facilitators, whereas students assume greater agency in the learning process. Teaching methods include use of prototyping and tangible objects to help students to learn: combining theory and practice.

Learning to learn and managing one's own learning is pivotal in this new teaching method. Teachers are mentors in students' learning journey. Students learn to reflect on their learning journey by means of evaluation, which also enhances their ability to give and receive feedback in team-based project. Students keep learning portfolios and learning diaries to document their learning journey and track evidences of learning. 20% of the grade is derived from peer-evaluation, 70% from teacher-evaluation and 10% from self-evaluation.

Critical thinking is essential throughout the project, particularly important when students obtain information outside of the formal lectures. They need to be able to critically judge different arguments, as well as validate sources of information in the websites. The critical thinking skill can be assessed during their presentation of their work where they defend and pitch their products, services and expertise e.g., use of capital.

Developing problem-solving skills through problem-based courses which are based on an open problem; students are trained to evaluate the situation, identify open issues, define the right problems, pose questions, as well as able to solve new problems.

Table 1. Overview of the methods used to develop and to assess the three core competences (Finland)

	Critical thinking	Problem solving	Managing learning process	All competences
Methods used to develop the competences	<ul style="list-style-type: none"> • Critical analysis • Defend & pitch • Assertive communication • Collaborative reflection 	<ul style="list-style-type: none"> • Open problems e.g., global warming • Team-based approach 	<ul style="list-style-type: none"> • Learning portfolios for tracking evidences of one's own learning • Learning diaries for reflection • Self- & peer-evaluation (Peer-feedback session- I like; I wish) • Group Project plan for professional identity (for assessment of strengths & weaknesses, as well as role assignments. 	<ul style="list-style-type: none"> • Mentoring (e.g., student-offered courses) • Facilitate instead of "teaching" • Student-centered learning process



	Critical thinking	Problem solving	Managing learning process	All competences
Tools to assess these competences	<ul style="list-style-type: none"> • Learning portfolios • Learning diaries • Presentation: defend & pitch products & services • Group project work • Self-, peer-evaluation & teacher-evaluation • Collaborative reflection 			

Next, this institution, **Edlab in the Netherlands** focuses on education and innovation. It works collaboratively with the other six faculties in the same university. All the programmes at the Bachelor level aim to develop the three core competences: critical thinking problem solving and managing one's own learning. Critical thinking and problem-solving skills are inherent to the problem-based learning system at this particular University through small group tutorial platforms.

Problem-solving & critical thinking skills: The problem-based learning system is not curriculum dependent, but rather, an independent philosophy of activating learning: giving the responsibilities to the students. Students are responsible for their own learning process that is inherent in all programmes. Students are presented with problems in certain courses (over three years of the Bachelor programm) which they have to discuss in small groups with their tutors. Students define their own learning goals, do individual literature review, and thereafter, discuss in small groups together with their tutors through group feedback system.

Mechanisms / methods to foster these skills include teamwork where students do workshops e.g., on time management etc. There is also PREMIUM where it aims to prepare students for the after-work, i.e., big employability project, an inter-play of the curriculum and field-dependent skills, as well as skills required at the work place.

Assessments and tools to develop and assess these skills (problem-solving & critical thinking) include essay questions, writing scientific papers and project-based work, in particular, the latter requires students to come together to solve problems. The grade in the thesis, portfolios, group product, presentation and exam is a reflection of the acquisition of these skills.



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Table 2. Overview of the methods used to develop and to assess the three core competences (the Netherlands)

	Critical thinking	Problem solving	Managing learning process	All competences
Methods used to develop the competences	<ul style="list-style-type: none"> • Problem-based learning system • Critical analysis • Reflective learning • Essay writing • Project-based work 	<ul style="list-style-type: none"> • Teamwork • Project-based work 	<ul style="list-style-type: none"> • Portfolios • Self-regulation: planning, monitoring and evaluation of one's own learning journey 	<ul style="list-style-type: none"> • Problem-based learning system – an all-encompassing approach to develop the three core skills
Tools to assess these competences	<ul style="list-style-type: none"> • Formal examinations • Scientific publications • Personal portfolios • Project-based work • Group product • Presentation 			

Part 2: Career services at one higher educational institution, the Netherlands

The career services in this university both support and prepare students for their future careers essentially, in guiding them in the choices they need to make. Students can benefit from training, information, advice and personal guidance. In addition, the career services connect students with the labour market. There are 80 online career modules ranging from self-understanding, to writing CV tools entrepreneurship, social and personal branding etc. for the students.

Where the three core skills are concerned, students are first brought through a process of **developing self-knowledge** of one's values, wishes, the career



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one desires to pursue and how to achieve one's goal. Hence, managing one's own learning process, epitomises self-awareness and self-knowledge. These two aspects embodied in managing learning process supersede all the other two core skills. Self-knowledge is deemed very critical and forms one of the first steps in preparing one for the market place.

Table 3. Overview of the methods used to develop and to assess the three core competences (Career Services, the Netherlands)

	Critical thinking	Problem solving	Managing learning process (Self-awareness & self-knowledge)	All competences
Methods used to develop the competences	<ul style="list-style-type: none"> • Critical analysis 	<ul style="list-style-type: none"> • Presentation • Teamwork 	<ul style="list-style-type: none"> • Personal learning portfolios • Pro-active planning & self-evaluation 	<ul style="list-style-type: none"> • Workshops • One-to-one talks
Tools to assess these competences	<ul style="list-style-type: none"> • Personal learning portfolios • Personal plan & evaluation • Presentation 			



5. MAIN CONCLUSIONS

Respondents who participated in the research performed within the project state clearly that the learning competences are very important and impact not only the potential and status of each individual but also of the organisation he/she works for. The final findings are summarized according to the competences identified as key for the development of the learning competence:

- ➲ **Learning to learn** is perceived as the key competence in life that allows to act efficiently and achieve the set goals, every day one has to learn something new to act efficiently and effectively. The society based on knowledge creates new challenges and formal education provides only general knowledge in a specific field. If a person wants to be up to date with the development, he/she needs to learn continually and improve qualifications. There is a need to develop this competence not only in people being educated but also in educators. The learning competence is important in every aspect of human life, not only in educational (school), professional situations, but also in private (personal) situation, including self-development. The employees who have developed the learning competence can adapt faster to an organization, perform the tasks they are given more efficiently, as well as act much more effectively when taking new challenges. In most cases, the developing the learning competence is an individual matter of each employee. Thus, in most cases, there are no special – formalised and systematic – actions for additional training in this scope. Ability to learn is crucial for the employees who want to live up to the changing requirements of the labour market. Among the respondents, there is a need to motivate employees properly and continually to improve themselves, be the best possible in different aspects of their work. Most often mentioned tools and methods for development of this competence were: internal trainings, trainings in the workplace, self-improvement, self-education, mentoring, coaching or tutoring, subject-based or problem-solving teams.
- ➲ **Critical thinking** is considered as one of the key competences that is necessary for an individual. The critical thinking concept is perceived as a leading competence both in the process of transferring knowledge, sharing knowledge and developing knowledge. Based on this competence, students can make appropriate choices about subjects, lecturers, text books, and educational materials as well as the offer complementing the curriculum related not only directly to education but also to being active in other areas of life. On the other hand, carrying critical thinking too far could be a disadvantage in multinational environment. The employees who have the critical thinking skill take into account a broad analysis perspective when preparing solutions, they are able to question and not to accept solutions that are substantively doubtful. Following tools and methods for development of this competence were proposed: trainings, workshops, courses, evaluation of



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selected areas, self-assessment, exchanging best practice, feedback from supervisor implemented on the work, mentoring, coaching, group work (brainstorming).

- ⌚ **Problem solving** is understood by most of the organisations included in the research to be important or very important in each employee group. This skill is manifested in efficient decision-making and the quality of decisions both in terms of routine and unique processes. Typical problems are solved automatically, while complex problems require advanced skills that should be improved. The problem solving skill was considered important in the context of rapid changes in the world that surrounds us and corresponds in a direct way to innovative and creative thinking. This skill is desired both in individual and group work and is reflected in high flexibility, analytical and creative thinking, the ability to think conceptually, having a critical attitude to the suggested solutions, the ability to communicate in an assertive and efficient way, looking for new solutions on the market and implement changes. Attitude toward problems is emphasised as the most important thing to develop. According to the research respondents, this competence can be developed in following ways: discussions, problem solving teams, popularization of best practice, courses and trainings, tutoring, peer learning, coaching, participation in trainings, motivating the learners to solve problems on their own.
- ⌚ **Managing own learning process** skill seems to be the hardest to define and the more diverse at first but eventually nearly all respondents linked this to managing own learning path has something to do with work-life balance, lifelong learning and career goals. This competence includes time management skills, self-knowledge and reflective mind-set. Students need to have the skill of managing their own learning process in order to gain the knowledge, skills and competences described in the curriculum in a specific period. It is manifested in an open attitude to new challenges, the fact of having the present state of knowledge, readiness to develop professionally and increase their competences, in the satisfaction of conducting the tasks given, sense of self-development and motivation for further development. People who have the skill of managing their own learning process can efficiently manage their own time, determine the scope of knowledge that is essential to gain in a specific time. The skill of controlling the level of own knowledge as well as updating it intentionally and systematically is highly valued and particularly desirable when the employee is confronted with new tasks and has not fully developed the ways to perform them yet. As per information collected among the research respondents, the most effective ways of developing this competence are: trainings, courses, internships, tutoring, exchanging of experiences with internal experts, mutual observation, working groups, problem solving, supporting and motivating employees to take responsibility and action considering their own development.

When asked about general recommendations regarding the learning competence development, respondents showed how complex issue it is. Special attention was given to the individualisation of the learning process according to the needs and capacities of each student which should be reflected



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also in a complex evaluation of the progress and motivation activities supporting the willingness of the student to continue and progress with further activities. They proposed numerous methods how the learning could be developed, e.g.:

- activate students during the university education time,
- offer individualised and interactive forms of learning and skills development,
- create inclusive and tolerant learning environment, enable learning on mistakes,
- offer workshops on different aspects of the process of learning,
- give more time in workshops to enable peer-to-peer learning,
- motivate to participate in professional trainings and workshops,
- perform assessment and evaluation of progress.

These methods are based on the activation of the learner and transferring the responsibility over the learning on the learner. The learning should be based on activating and interactive methods of work and a system of motivating and evaluating the learning process. Trainings of soft skills are considered as those that show people their capability to develop their learning competence and success during the training course increase the level of motivation to continue the work and further development.

It is worth noticing as well various tools which may be used to asses selected core skill-sets, i.e. formal examinations, scientific publications, personal portfolios, project-based work, group product, presentations, personal plan & evaluation.

There is a clear understanding the continuous learning is a key element of the constantly changing world and can impact the market position of the organisation – whether representing education or not. This is in particular due to constant and rapid changes that can be observed in the world of today. All organisations understand the need for development of employees competences however not all of them have the means to support it with relevant programs and initiatives. At the same time we observe that employee who presents his/her achievements when it comes to personal development shows that is very important for the organisation and so is considered. In this light it becomes clear that potential employee is more valuable when has the “learning competence” developed already during the university time, which confirms the meaning of this project and its results to the development of contemporary high education methods in this field.



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