



VET_{mh} TuTo+

Vocational education process in European tutoring for immersion trainees in the mental health sector

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What explicit and implicit knowledge do participants of the VET_{mh} TuTo+ project acquire and is this knowledge shared with others?



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1 Introduction

In this paper we examine the research question “**What explicit and implicit knowledge do participants of the VETmh TuTo+ project acquire and is this knowledge shared with others?**”.

In this research questions, we see three important elements: a European project, the topic knowledge and the topic retention. The two major topics, knowledge and retention, will be investigated thoroughly. For organizations it is important to pay attention to these topics and to the relationship of these two topics together. In this way, an organization can last longer, with motivated and knowledge-driven employees. The third element, a European project, will be examined according to these two topics. Because we examine a European project of the Erasmus+ program, it is significant to look at these topics on a European level. This means that we will look at what these topics mean to the European Commission, the European Union, European agencies, We will look at what they say and how they see these topics in relation to the Erasmus+ program. The Erasmus+ program manages different European projects including the TuTo+ project which will be the project examined in this paper.

The TuTo+ project will be examined in this paper. We will choose the most adaptive method according to my research question and the given time and circumstances. We will explain how exactly we will conduct the research to finally conclude our results and analysis. At the end, we want an answer on our research question.

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2 European projects

2.1 VET_{mh} TuTo+

The European projects are managed by the European Erasmus+ Program **“Vocational Education process in European Tutoring for immersion trainees in the Mental Health sector (VET_{mh} TuTo+)”**. It focuses on the practical training of young employees in psychiatry and mental health care. One of the programs that CNP Saint-Martin is now working with and I will work with, is the **TuTo+ program**. This project focuses on the development and skills of the young employees, so the goal is to increase the skill level (CNP St-Martin, 2018). It therefore mainly focuses on new employees who would like to work in this sector (TuTo+, sd). The TuTo+ project trains young employees in becoming a good tutor to other younger employees. The goal of the project is that the tutor learns how to help a learner how to learn (“learn to learn”). Concretely this means that the tutor learns some skills during the training that he has to learn to his trainee afterwards. To make this clearer I will give an example: during the TuTo+ project, the tutors learn how to speak before a group and how to communicate better. This is a skill/competence that the tutor has to learn to his trainee afterwards by using the acquired knowledge from this project. As a secondary element, this training therefore contains also a tool to transfer their (acquired) knowledge/skills/competences to others (personal communication, May of 2019).

As there is a shortage of mental health staff in Northern and Western Europe, one of the goals of these European projects are to attract new employees. They focus on the motivation and personal development of their employees (CNP St-Martin, 2018). In addition, they want to facilitate the integration on the basis of knowledge transfer (of both explicit and implicit knowledge) and to create a bond between the older and younger generation (TuTo+, sd).

In the project TuTo+, a young employee is supervised by an experienced tutor. In this way, the experienced tutor can transfer his knowledge and expertise to the younger employee. Because the young employee will undergo different training courses, but also because he will be employed in different places, he will increase his skills and knowledge. The aim of the project is therefore to improve the knowledge and abilities of young employees, but also to make the professions located in mental health care more attractive (TuTo+, sd).



The TuTo+ project consists of a duration of three years (2018-2021) where the trainings sessions consist always of a duration of 3 days. The project will be held in Belgium and in Romania. These are the following dates of the training sessions:

- 27-28-29 March 2019 in Belgium
- 3-4-5 April 2019 in Romania
- 16-17-18 October 2019 in Belgium
- 23-24-25 October 2019 in Romania
- 13-14-15 January 2021 in Belgium
- 25-28-29 January 2021 in Romania

The participants choose to follow the training sessions either in Belgium or either in Romania. There are **17 participants** who have chosen to participate at the session in Belgium. These participants are divided as followed:

Name	Organization	Country
Participant A	CNP Saint-Martin	Belgium
Participant B	CNP Saint-Martin	Belgium
Participant C	CNP Saint-Martin	Belgium
Participant D	CNP Saint-Martin	Belgium
Participant E	CNP Saint-Martin	Belgium
Participant F	CNP Saint-Martin	Belgium
Participant G	CNP Saint-Martin	Belgium
Participant H	CNP Saint-Martin	Belgium
Participant I	CNP Saint-Martin	Belgium
Participant J	CNP Saint-Martin	Belgium
Participant K	CNP Saint-Martin	Belgium
Participant L	APSI (Association de Prévention Soins et Insertion)	France
Participant M	APSI (Association de Prévention Soins et Insertion)	France
Participant N	APSI (Association de Prévention Soins et Insertion)	France
Participant O	APSI (Association de Prévention Soins et Insertion)	France



Participant P	APSI (Association de Prévention Soins et Insertion)	France
Participant Q	KEPSIPI (Centre of Psychological and Pedagogical Support)	Greece

The sessions will be held in French for the ones in Belgium and in English for the ones in Romania. In the meantime, between the sessions, the participants continue their daily (work) life. The participation in the project is voluntary (personal communication, March of 2019).

2.2 Link with European authorities

It is significant to link this paper to European authorities to see how they view the different topics and how the topics are implemented by the different European institutes. The Erasmus+ program is managed by the European Commission (the EU's executive body), the Education, Audiovisual, and Culture Executive Agency (EACEA) of the European Commission, a series of National Agencies in Program countries, and a series of National Offices in some Partner countries. The European Commission is responsible for Erasmus+ policies and oversees the overall program implementation / management of the program, these include:

- Managing the budget
- Setting the priorities
- Identifying the programs targets and criteria
- Monitoring and guiding the implementation
- Follow-up and evaluation of the program

The Education, Audiovisual, and Culture Executive Agency (EACEA) of the European Commission is in charge of managing the "centralized" elements of the program, including:

- Promoting the program and opportunities
- Launching calls for proposals
- Reviewing grant requests
- Contracting and monitoring projects
- Communicating on results (European Commission, sd.).



3 Knowledge

3.1 What do we understand by knowledge?

Knowledge is a very broad and much described concept. All sorts of interpretations and definitions can be given, making it difficult to list an unambiguous definition of this. According to Bertrams (in Diepeven, 2005) knowledge is the product of data, information and personal experience. This corresponds to the definition of Weggeman (1997) who sees knowledge as a product of information, experience, skills and attitudes. One of the most common definitions of knowledge is found in the definition of Nooteboom (1995). "Knowledge is understanding plus the ability to transform it into actions (skills), which yields performance" (Nooteboom, 1995, cited in Boersma, 2006). When looking at the definition of Nooteboom, we notice the following things. The first important element we see is the understanding. Understanding a situation, a problem, a mystery, This element can be named as the understanding-part which mainly relates to the insight. This element is different for everyone and is partly determined by the way of upbringing, education, training, and so on. As second important element we see the skills or the competences of an individual. Here the insight of the understanding-part is transformed into the necessary actions to arrive at the result. This element is somewhat present from birth, but can be trained by various things such as education or training. Finally, we see the ultimate goal or desired outcome, namely the performance. This is the result of knowledge (Boersma, 2006).

When we look at how European institutes describe the definition of knowledge, we can see different interpretations as well. According to the European Qualifications Framework (EQF) (see later) knowledge is defined as "the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study." (European Commission, sd.). ESCO (European Skills/Competences, qualifications and Occupations) applies the same definition. In the different levels we see that the EQF describes knowledge as theoretical and/or factual. Both skills and competences rely on this. The difference lies in the way this knowledge is applied and being put into use (European Commission, sd.). According to Cedefop (European Centre for the Development of Vocational Training) knowledge is the result of an interaction between intelligence (capacity to learn) and situation (opportunity to learn) (Cedefop, sd.) The higher our competences are, the more we convert our knowledge into skills (Klieme et al. in Cedefop, sd.).



3.1.1 Skills and competences

Skills and competences are important factors when talking about knowledge and therefore it needs to be defined as well. First, we use the definitions of the EQF and ESCO. According to this skill means “the ability to apply knowledge and use know-how to complete tasks and solve problems” (European Commission, sd.). They can be described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). When looking at the typology of Cedefop, we see that skills is usually used to refer to a level of performance, in the sense of accuracy and speed in performing particular tasks (skilled performance). Another definition giving here is by Proctor and Dutta (in Cedefop, sd.). They define skill as “goal-directed, well-organised behaviour that is acquired through practice and performed with economy of effort” (Proctor and Dutta in Cedefop, sd., p.28).

Competences, on the other hand, is broader and refers typically to the ability of a person - facing new situations and unforeseen challenges - to use and apply knowledge and skills in an independent and self-directed way. This is defined as “competence means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development” (European Commission, sd.). They are described in terms of responsibility and autonomy (European Commission, sd.). In the typology of Cedefop, there is not one clear definition given because it is impossible to identify this according to them. In summary they say that if intellectual capabilities are needed to develop knowledge and operationalize knowledge is part of developing skills, then all are prerequisites to developing competence, together with other social and attitudinal aspects. Weinert (in Cedefop, sd., p. 34) lists a range of dimensions held to influence an individual’s degree of competences:

- Ability
- Knowledge
- Understanding
- Skill
- Action
- Experience
- Motivation



➤ **Hard skills and soft skills**

An often made (for example by Laker & Powell, 2011; Doyle, 2019-a; Kagan 2017; Grisi in Cimatti, 2016; ...) and important distinction when talking about knowledge/education/training, is this between hard- and soft skills.

Hard skills can be seen as technical skills that involve working with equipment, data, software, etc. (Laker & Powell, 2011). They include the expertise necessary for an individual to successfully do the job. They are job-specific and are typically listed in job postings or job descriptions (Doyle, 2019-b). People put these kind of skills often in their cover letter and on their resume, and are easy for an employer or recruiter to recognize (The Balance Careers, sd.). They are specific, teachable abilities that can be defined, evaluated and measured, such as typing, writing, math, reading and the ability to use software programs (Kagan, 2017).

Soft skills are intrapersonal skills such as one's ability to manage oneself, as well as interpersonal skills such as how one handles one's interactions with other (Laker & Powell, 2011). It refers to our attitudes and our intuitions, which are less referable to our qualifications and more personality-driven (Eurodesk Qualified Multiplier, 2018). Therefore, it can be seen as 'transferable skills' because that can be used regardless of the job at which the person is working. In other words, they are not job-specific (The Balance Careers, sd.), they are cross-cutting across jobs and sectors (Dall'Amico & Simonetta, 2005). They are harder to quantify, in contrast to hard skills (Kagan, 2017). They relate to personal competences (confidence, discipline, self-management) and social competences (teamwork, communication, emotional intelligence) (Soft skills, sd.). They give hard skills the required plasticity to develop and keep up-to-date in changing circumstances (Grisi in Cimatti, 2016). They are the building blocks for the development of the hard skills and competences required to succeed on the labour market (European Commission, sd.). Soft skills go beyond the strict demands of the profession (Grisi in Cimatti, 2016), they are the cornerstone for the personal development of a person (European Commission, sd.).

There are many ways organizations or institutions refer to soft skills. Synonyms given for soft skills are: generic competences, life skills, transversal skills, transferable skills, key competences for lifelong learning, 21st century skills, personal skills, interpersonal skills, people skills, ... (Cinque in Cimatti, 2016; Europe Language Cafe, 2018; The Balance Careers, sd.). Hard skills, on the other hand, have less synonyms. They do get called technical skills (European Commission, sd.), professional skills



(Europe Language Cafe, 2018) or specific competences (Poblete Ruiz in Cimatti, 2016). To make these terms clearer, here follows a list of examples of hard and soft skills.

Hard skills:

- The ability to regulate and control a certain machine (Cimatti, 2016);
- Knowing and being able to work with computer programs;
- Web development (Europe Language Cafe, 2018);
- Proficiency in a foreign language;
- Typing speed (The Balance Careers, sd.);
- Mathematics;
- Finance;
- Accounting;
- Writing and reading (Kagan, 2017);
- ...

Soft skills:

- Communication;
- Teamwork;
- Networking;
- Time management;
- Motivation;
- Adaptability and flexibility;
- Problem-solving;
- Conflict resolution (Innovative Curriculum on Soft Skills for Adult Learners);
- Empathy;
- Leadership;
- Sense of responsibility;
- Sociability (UNESCO, 2013);
- Emotional intelligence (Soft skills, sd.);
- Service skills (understanding of others' need) (Dall'Amico & Simonetta, 2005);
- Creative thinking and innovation;
- Decision making;
- Critical thinking and structured thinking (Innovative Curriculum on Soft Skills for Adult Learners; Dall'Amico & Simonetta, 2005);
- ...

They're several reasons why the distinction between hard and soft skills is made. First, we notice that those who train individuals in the hard or technical areas are



different from those who train individuals in the soft areas and are usually unfamiliar with the training methods of the other. And second, there is an increasing awareness that technical skills are insufficient for subsequent success beyond an entry-level position, let alone for professional fields. Subsequent success beyond these initial levels usually requires proficiency in soft-skill areas: leadership, self-management, conflict resolution, communication, emotional intelligence, and so on (Laker & Powell, 2011; Goleman, 1995; Mitchell, Skinner, & White, 2010).

Besides this, it is demonstrated that soft skills are becoming as important as hard skills when looking for a job. If not, more important (Bortz, sd.; Cimatti, 2016). Soft skills are strategic to be successful in personal and professional life and are essential for a candidature when he tries to obtain a job (Cimatti, 2016). Employers care about soft skills because not only the technical skills are needed in a job, but also the skills that are similar to emotions or insights that allow people to “read” others (The Balance Careers, sd.). They help facilitate human connections. They are the key to building relationships, gaining visibility and creating more opportunities for advancement (Bortz, sd.). Soft skills are important for active citizenship and lifelong learning (European Commission, sd.). Lifelong learning is an important term in this context of the paper. Lifelong learning encompasses formal (explicit) and informal (implicit) learning from early childhood and basic education through to adult learning, combining foundational skills, social and cognitive skills (such as learning to learn) and the skills needed for specific jobs, occupations or sectors (Nybom, 2018). If learning is to become truly lifelong, skills must be portable (Publications Production Unit of the ILO, 2019). Not only are soft skills important for active citizenship and lifelong learning, they are also a way to avoid having a workforce polarized between those who are highly educated and those who are not. Yet soft skills are the hardest skills to document and are still often neglected by employers (European Commission, sd.).

3.1.2 Three forms of knowledge in an organization

When we want to do knowledge management or when employees leave the organization together with the knowledge in their head, it is important to give new employees the crucial knowledge. In order to know which knowledge is important to share and measure, a distinction is generally made between three forms of knowledge present in an organization. This involves knowledge of the tasks, the role knowledge and knowledge of the organizational values.

1. Knowledge of the tasks contains the necessary competences and knowledge required to perform the job well. This is specifically related to the function.



2. Role knowledge includes the expectation of how the individual should behave in his function and organization. For example, when an employee is expected to have a leadership style.
3. Finally, the knowledge of the organizational values concerns the behavior and attitudes that the organization attaches importance to. For example, when employees are expected to deal with colleagues and customers in a respectful way (Lahti, Darr, & Krebs, 2002).

3.1.3 Different types of knowing

We can divide knowledge into various sub-elements. The main distinctions are these between procedural/declarative knowledge, explicit/implicit knowledge and knowing what/how/that/why. We can view these distinction together as they are mentioned in different types of literature, similar in the typology of Cedefop.

The first division of knowledge we see is the difference between **procedural and declarative knowledge**. Procedural knowledge is knowing how to do something, and declarative knowledge is knowing what to do, factual knowledge. From this perspective, it is often argued that acquiring declarative knowledge must precede developing procedural knowledge, which relates to utilizing knowledge in context. Procedural knowledge is equalized to 'know how' by Cedefop (sd.) and Boersma (2006). According to Boersma (2006), one has to go through a procedure to achieve a certain goal. Declarative knowledge equates to 'know what' or to explicit knowledge (Cedefop, sd.).

Here we see another division of knowledge in the difference between **explicit and implicit knowledge**. Explicit knowledge, also known as formal or propositional knowledge, is knowledge that you can record (Lievens, 2015), storage, transfer and manage (Diepeven, 2005). It is the 'knowing what' or equalized to this, the 'knowing that' (Cedefop, sd.). Nonaka and Takeuchi (in van den Brinck, 2003) define explicit knowledge as knowledge that you can express in words and numbers and of which you can capture them in different formats. Explicit knowledge can be written down and can be easily passed on to others. Examples include writing down procedures, manuals, diagrams, prognoses, etc. (Schoenherr, Griffith, & Chandra, 2014), or having knowledge about certain data sheets, research reports, ... (Alexander, sd.). This form is learned through educational/training systems and is intentional from the learner's perspective in the sense that learning is always the goal. It can lead to some certifications or validation (Council of Europe, 2018; Modern Workplace Learning 2019, 2018).



In contrast, implicit knowledge, or also called 'tacit knowledge', is more difficult to record and therefore more difficult to pass on to others. Thus, it is hard to transfer, teach and learn and requires a lot of human interpretation (Diepeven, 2005). This is knowledge from the individual, which is stored in the people's head. It is based on ability, the desire, being allowed to (Diepeven, 2005) and on the personal experiences of an individual (Lievens, 2015). This means that implicit knowledge is subjective and often ambiguous. Implicit knowledge is expressed in the behavior or actions of an individual (Venkitachalam & Busch, 2012). We can connect this kind of knowledge with the 'know how' as described above. It reflects in the personal skills that have been learned through time (Mooradian, in Schoenherr, Griffith, & Chandra, 2014). This form is learned by daily work-related, family or leisure activities. It is in most cases unintentional from the learner's perspective and it typically does not lead to certifications (Modern Workplace Learning 2019, 2018). Examples are knowing how to play an instrument, how to drive a car (Chugh, 2015), having an intuition or emotional intelligence, leadership, ... (Spacey, 2016). According to Polanyi (in Scully, Buttigieg, Fullard, Shaw, & Gregson, 2013), implicit knowledge, together with shared values and traditions, is the core of scientific discovery and innovation. His most famous quote is as follows: "we can know more than one can tell" (Polanyi, cited in Scully, Buttigieg, Fullard, Shaw, & Gregson, 2013, p. 2303).

We have spoken about 'know what', 'know how', 'know that', this is a distinction that is made a lot by different authors as seen before. An explication we found in the definition of Quinn, Anderson, & Finkelstein (in Lievens, 2015, p 281). Here, knowledge is seen as an intellectual capital that is distinguished by three elements, namely the cognitive knowledge ('**know what**'), the skills ('**know how**') and the understanding of systems ('**know why**'). Besides that, they see a fourth element, namely the motivation to be creative. We find these three distinctions in a great deal of literature. Boersma (2006) equates 'knowing what' with 'knowing that'. This equalization is made often, as so in the typology of Cedefop (Cedefop, sd.) Boersma (2006) names the 'know why' as background knowledge or meta knowledge. This clarifies underlying knowledge and questions knowledge. It concerns knowledge about knowledge in which one searches for a statement about processes. Oldenkamp and Knight (in van den Brinck, 2003) distinguish a fourth element namely 'know who' what they describe as social knowledge. This concerns the personal network of the person concerned.

Thus, we see different names for knowledge and different types of knowing. To make this more clear:

- Declarative = explicit or formal knowledge = know what or know that
- Procedural = implicit or tacit knowledge = know how



Now we can ask ourselves if we can equate explicit knowledge (as set in our research question) to hard skills and if we can equate implicit knowledge (as set in our research question) to soft skills? We first examine the literature to see what has already been said about this equalization. Then, we compare those two with examples and differences.

According to Kiser (2017), we can put hard skills on the same knowledge spectrum as explicit knowledge, and soft skills on the same spectrum as implicit knowledge. He gives the same examples and explanation for explicit/implicit knowledge and hard/soft skills.

When we compare those two terms with a definition and examples, we get this table:

Explicit knowledge	Hard skills
<p>Explication:</p> <ul style="list-style-type: none"> • 'Know what' • Knowledge that you can record, storage, transfer and manage • That you can express in words and numbers and of which you can capture them in different formats • Can be written down and passed on to others 	<p>Explication:</p> <ul style="list-style-type: none"> • Technical skills that define a job • Easy to recognize • Can be defined and measured • Job-specific • Teachable
<p>Examples:</p> <ul style="list-style-type: none"> • Knowledge of procedures, manuals, ... • Data sheets • Research reports • Knowing all kinds of medicines • Knowledge of certain machine 	<p>Examples:</p> <ul style="list-style-type: none"> • Knowledge of a certain machine • Knowledge of computer programs • Proficiency in a foreign language • Mathematics • Writing and reading

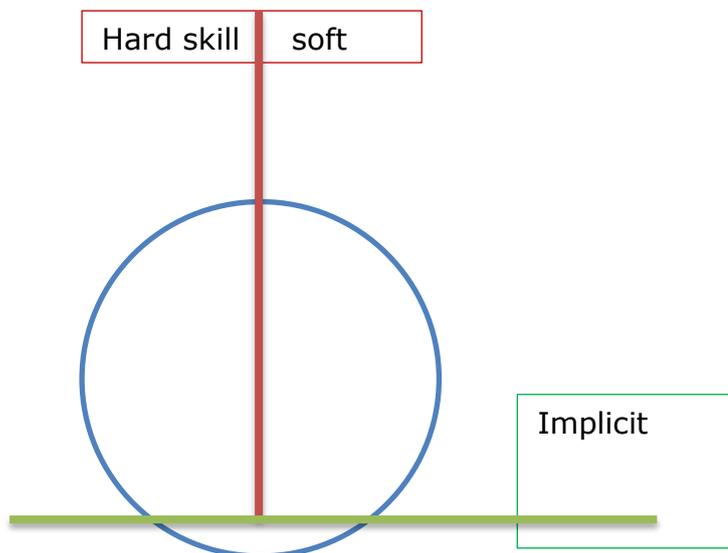


Implicit knowledge	Soft skills
<p>Explication:</p> <ul style="list-style-type: none"> • 'Know how' • Knowledge from the individual, which is stored in the people's head • Expressed in the behavior or actions of an individual • Personal skills that have been learned through time • Difficult to record, transfer, teach and learn 	<p>Explication:</p> <ul style="list-style-type: none"> • Intra- and interpersonal skills, personality-driven • Transferable skills, not job-specific • Refers to our attitudes and our intuition • The cornerstone for the personal development of a person • Hard to quantify
<p>Examples:</p> <ul style="list-style-type: none"> • Leadership • Intuition • Emotional intelligence • Ability of speaking a language • How to play an instrument 	<p>Examples:</p> <ul style="list-style-type: none"> • Emotional intelligence • Problem-solving • Time management • Leadership • Sense of responsibility

I think we can conclude that explicit can be compared to hard skills. We see that the two terms are not completely the same as in definition or examples, but the big view is very similar. They are both about knowledge that are 'harder' and that you have to learn before you are able to use it. You have to learn how to control a certain machine for example. They are both knowledges that you can written down how to do it, that you can teach to someone else. I think we can say the same about the comparison between implicit knowledge and soft skills. The big view is very similar as well. They are both about knowledge which is not (or hard) teachable to others, they are knowledges that are personal and have been learned through time.



However, we cannot fully equate these with each other. When we divide explicit/implicit knowledge with hard/soft skills, we see a circle like this:



In this circle we see the problem that soft- and hard skills can be both implicit as explicit. The same with implicit- and explicit knowledge which can be both soft skills as hard skills. This problem has arisen in the negotiation and conversations about this topic. When people trying to express their soft skills or their implicit knowledge, this can become explicit.

3.2 What do we understand by knowledge management?

Around the term knowledge management, just like the concept of knowledge, there are many common definitions. Lievens (2015) defines knowledge management as investing in knowledge so that this knowledge is retained in the organizations. Adjacent to it you invest in the development and renewal of knowledge. According to Carla O'Dell and Jackson Grayson Jr. (in Diepeven, 2005) knowledge management is a strategy that ensures that information reaches the right people on time. If this is the case, these people can take action and create values for the organization. By knowledge management we mean not only the sharing of knowledge, but also the safeguarding of the knowledge present in an organization (Goubin, 2011). A more extensive definition is given by North & Kumta (2018, p. 13):

Knowledge management enables individuals, teams and entire organizations as well as networks, regions and nations to collectively and systematically create, share and



apply knowledge to achieve their strategic and operational objectives. Knowledge management contributes to increase the efficiency and effectiveness of operations on the one hand and to change the quality of competition (innovation) on the other by developing a learning organization.

For the concept of knowledge management, there are many synonyms that have the same intentions but accentuate a different emphasis. As mentioned in the previous paragraph, knowledge management contains the safeguarding of knowledge. In other words, we can view the safeguarding of knowledge as one of the synonyms of knowledge management. By the safeguarding of knowledge, we mean that we try to retain knowledge in an organization and make this available to others in order to lead to innovation. In this term, we emphasize the fact that knowledge retention must be done at all times of an employee's career. Knowledge must be mapped out at the beginning, middle and end of the career and this over all functions (Talentontwikkelaar, sd.). Another synonym is the concept of knowledge productivity. When we apply our knowledge with the intention of creating improvement and innovation, we achieve knowledge productivity. This involves analyzing relevant information and using it to ensure improvement and innovation of processes, products and services. In this way, the skills of individuals are developed and at the same time the productive use of knowledge is provided for improvement. In the knowledge-productive approach, knowledge is seen as a personal competence that includes individual capacities, talents or expertise (Kessels, 2005). Ultimately, these concepts all lead to the same goal and that is to retain knowledge with the aim of improvement, renewal and innovation. That is what knowledge management is all about.

In order to implement knowledge management, it is important that we share knowledge and that there is knowledge transfer. Sharing knowledge is a way to improve the productivity of knowledge and of the employees in an organization (van den Brinck, 2003). It contains many benefits for the organization that have been proven in numerous studies. In general, we see that knowledge sharing offers a clear advantage over the effectiveness of the organization (Cummings, 2004) and its performance. It offers a great knowledge competitive advantage to other organizations when knowledge is shared with each other (Argote & Ingram, 2000; Cohen & Levinthal, 1990). Knowledge sharing is not only about sharing pure information, but also about sharing thoughts, experiences and ideas (van den Brinck, 2003). When we link this to explicit and implicit knowledge, we can conclude that knowledge management and thus the sharing of knowledge involve both explicit and implicit knowledge. This confirms Malhotra (in van den Brinck, 2003). She sees knowledge management as a way to support implicit knowledge and to gain better



access to explicit knowledge.

3.3 Why interest in knowledge (management)?

One of the most important reasons why knowledge management is important in the 21st century is because we are increasingly living in a knowledge economy. According to Quinn, Anderson, & Finkelstein (1996), we can increasingly compare our economy with a g in which intellectual processes become more important compared to the hard assets that organizations produce. Kessels (2005) confirms this theory and states that we are moving from an industrial economy with physical labor that is highly regulated, to a knowledge economy where human knowledge is central. No longer is the product, but the knowledge behind the product, gaining in importance. And this with the assumption that knowledge adds greater added value to organizations than factors such as raw materials, capital and labor. This modern economy is primarily focused on continuous learning and, subsequently, a continuous development of knowledge. Because it is only by further developing our knowledge and competencies that we can participate in the modern working environment.

This changeover to a knowledge economy is a consequence of the increasing complexity of the work, which cannot (always) be based on standardization anymore. Another characteristic that results from the fact that we live in a knowledge economy is the fact that everything accelerates. Products are increasingly in need of change and innovation, the development time of a product is short and knowledge is ageing. Globalization also has a strong influence on the knowledge economy and this because more and more organizations are going out internationally and knowledge transfer are therefore increasingly needed. We also note that knowledge in itself is also expanding considerably. Because there is just such a large amount of knowledge available within society, we have the need to find the right knowledge from this (Mackenzie Owen, 2001). In addition, the strongly emerging technology influences the production and service provision of an organization through which knowledge always changes. Knowledge then sticks in the heads of the employees and is no longer written down in procedures. At last, ageing also plays a role in knowledge management. When the 'baby boomers' generation will retire, a lot of information and knowledge will be lost, especially the implicit knowledge (Kessels, 2005).

This requires a changeover in the way of working and also the way of organizing work. Not only employees will have to change their way of working, but the organization will have to create a working environment that meets these needs. Or in other words, a knowledge-productive work environment. The way in which an organization organizes and stimulates and motivates its employees is partly in line



with this. I refer to part three of my reading list in which I go about retaining staff and which elements of the organization affect this. When we do knowledge productivity or knowledge management, this will lead to learning at individual, team and organizational level (Kessels, 2005). Securing knowledge in an organization therefore has many advantages that I will discuss in the next paragraph.

3.4 Why secure knowledge in an organization?

When we talk about securing (safeguarding) knowledge or sharing knowledge with others in organizations, it may be relevant to first look at the obstacles that individual employees experience in order to fully participate. These are also some reasons why knowledge is often not transferred to others. In this way, an organization can respond to these obstacles. In many cases, employees are unaware that they have specific knowledge that others do not have, so they do not feel the need to talk about this (Donners & Van 't Klooster, 2000). At the same time, employees do not always consider their knowledge to be important, so they don't see the necessity to transfer this (Diepeven, 2005). Furthermore, it takes time and effort for the employee with this knowledge to transfer this to others (Donners & Van 't Klooster, 2000). In addition, an employee sometimes prefers to stay with his familiar procedure or knowledge without gaining new knowledge and has no or (too) little affinity with other employees so that he does not want to share the knowledge (Diepeven, 2005). But besides these obstacles, knowledge management offers many advantages for an organization and an organization benefits from doing knowledge management. When an organization draws up a knowledge program, it is therefore important that all employees clearly know what benefits this offers.

Once employees have acquired knowledge - by participating in projects or training courses or through general experiences - it is important that this knowledge remains in the organization, even when the people leave the organization. As mentioned in the previous section, there are many elements that make organizations have to pay more and more attention to knowledge in an organization. For this, various reasons and various studies have been carried out that expose the benefits of knowledge management. In general, we can state that securing or retaining knowledge in an organization is beneficial for every organization because it ensures continuity of the organization. Employees build up a lot of knowledge during their careers and when these people leave the organization, some of the knowledge disappears with them (De Troyer, 2008-2009). This is because most of the information we use in organizations is not in computers, systems or manuals, but in people's heads (Quintas, Lefrere, & Jones, 1997). In other words, knowledge management or securing knowledge in an organization is essential if the organization wants to continue to grow.



A German study on 'Knowledge Manager of the year' showed that knowledge management mainly offers its advantages in larger organizations employing more than 250 employees (Davenpoort & Prusk, 1998; North, 2002 in North & Hornung, 2003). Thirty-four organizations also participated in this study to investigate the benefits of knowledge management. The results show that knowledge management offers the greatest advantage on business processes. More specifically on the acceleration of processes, reduction of errors and better transparency. Beside it, knowledge management also offers a big advantage on employee and customer satisfaction. The satisfaction of employees is mainly reflected in an improvement in teamwork, a short period of training and an increase in personal knowledge. Customer satisfaction is highly reflected in the satisfaction of the improvement of the quality of products (North & Hornung, 2003). These findings are similar to those of Zack et al. in North & Kumta (2018). They have found a direct connection between knowledge management and organizational performance and this organizational performance is associated with financial performance. Knowledge management leads to economic benefits in an organization including increasing innovation and agility, a reduction in errors and a reduction in production time. It would also lead to attracting and retaining workers with a lot of knowledge. In addition, knowledge management can be linked to strong innovation and creativity of the organization and a relationship of trust or intimacy with the customers.

Another study of the advantages of knowledge management is found at KPMG Consulting, which carried out research in their 'Knowledge Management Research Report 2000' among 423 respondents from different sectors and different countries. Among other things, they have examined the benefits of knowledge management for the organization. This shows the first major advantage that knowledge management would help to make better decisions (71%), as a second advantage we see that this leads to a faster response to important business problems (68%) and thirdly, this helps to improve customer care (64%) (KPMG Consulting, 2000). Berenschot (in Diepeven, 2005) also says that knowledge management will lead to an increase in the learning capacity of the organization and the organization can make better organizational decisions. In addition, we note that when an organization draws up a program in which knowledge management is met, this will increase the memory of the organization and at the same time reduce its vulnerability. Because when an employee with a lot of knowledge, leaves the organization, the organization loses a bit of its knowledge (van den Brinck, et al., 2012).



3.5 How do we measure knowledge?

But how exactly do we measure the knowledge in organizations? How do we do knowledge management? What knowledge do we consider and what specific knowledge do we want to share? It can be useful for an organization to first distinguish between irrelevant and relevant knowledge. When an employee leaves the organization, not all knowledge he possesses will be relevant to the future of the organization. Try to identify which knowledge would really be missed when this person no longer works in the organization, in other words the unique and vulnerable knowledge. Having an idea of who owns which knowledge and how and when this knowledge is applied can also create clarity (van den Brinck, et al., 2012).

3.5.1 Four modes of knowledge creation

In order to provide a better insight into knowledge, we start by looking at how individuals acquire knowledge. This will help us understand where knowledge comes from and how it has been learned. Nonaka (1994) distinguishes four types of ways of knowledge conversion. These four forms present a spiral model (also known as the **SECI-model**) that reflects knowledge in an organization and stimulates knowledge transfer (Nonaka and Takeuchi, 1995 in Scully, Buttigieg, Fullard, Shaw, & Gregson, 2013). The creation of knowledge at the organizational level can only take place if these four forms are supported by the organization in a continuous learning cycle (Nonaka, 1994). When employees share both explicit and implicit knowledge, this will increase the chances of generating new knowledge and innovation (Gunnlaugsdottir, 2003). This SECI-model contains a step-by-step model as well for retaining knowledge in an organization (Arif, Khalfan, Barnard, & Heller, 2012). Note: they use 'tacit knowledge' which is similar to implicit knowledge.

Figure 1 Modes of the Knowledge Creation

		Tacit knowledge	To	Explicit knowledge
Tacit knowledge	From	Socialization		Externalization
Explicit knowledge		Internalization		Combination

Figure 1: Remark. Taken from "A Dynamic Theory of Organizational Knowledge Creation" by Nonaka, 1994, *Organization Science*, 5(1), p. 19.



In the process of socialization (from implicit to implicit knowledge) an interaction takes place between individuals. Here one learns by observing, imitating and by exercise. In an organization, this is often put into practice on the basis of learning-on-the-job. Individuals share each other's learning processes through a shared form of experience, only then will socialization arise (Nonaka, 1994). This happens quite quickly in the learning process of people and often also happens unconsciously. In many cases we know how to do something, but we cannot explain how we learned this or how we acquired this knowledge. The answer to this is through socialization (Mackenzie Owen, 2001).

In the process of externalization (from implicit to explicit knowledge) they assume that implicit and explicit knowledge is complementary and that mutual interaction occurs (Nonaka, 1994). Here one tries to articulate the implicit knowledge verbally or in writing and to make it explicit in concrete explanations, models or examples. This is a very useful form of knowledge transfer because knowledge management can arise here, namely knowledge that can be applied and transferred to others (Mackenzie Owen, 2001).

When we transfer explicit knowledge to explicit knowledge, we are in the process of combination. Here, individuals exchange their knowledge among themselves by means of exchange mechanisms such as meetings. In this process, new knowledge can be created because the existing explicit information is brought back into context, sorted and information is added (Nonaka, 1994). In this way, they can make connections, comparisons, and so on by which we can create new combinations of knowledge. This can create a new or adapted form of knowledge (Mackenzie Owen, 2001).

In the process of internalization (from explicit to implicit knowledge) they also assume the complementarity between implicit and explicit knowledge (Nonaka, 1994). In this form one learns by doing so because explicit knowledge often transfers to implicit knowledge in the longer term. In the beginning one learns by explicit knowledge and after a while executing something becomes a 'second nature' without you having to think too much about it. Think of the example of learning how to drive a car (Mackenzie Owen, 2001). This generic knowledge is often gained by public sources such as the internet etc. (Gunnlaugsdottir, 2003).



3.5.2 Measuring general knowledge in an organization

In order to carry out a good knowledge management, it is very important to first measure the knowledge. But measuring knowledge is not easy, on the contrary. A study of 431 American and European organization showed that 43% indicate that they find it the most difficult to measure knowledge, except for the behavior of people (Ahn & Chang, 2004). Others even claim that knowledge cannot be measured, but only the outcomes or activities that are the result of this knowledge can be measured (Ruggles, 1998).

First, I want to indicate a model in which the authors attempt to measure the knowledge potential in an organization. This is a broader view of the knowledge present in an organization. In order to arrive at a measurement of the knowledge potential in an organization, Bivainis & Morkvėnas (2012) observe three elements. A measurement of the potential knowledge of the employees (1), a measurement of the synergy of the knowledge potential (2) and the external context of the organization (3). To assess the first element, they look at the complexity of an individual's function. They study this complexity based on an evaluation of the requirements that are necessary to carry out the task. Hereby they look at, among other things, the degree of the education diploma, the professional his professional experience and the level of position. The second element, the measurement of synergy, requires a brief explanation. Under synergy, the authors understand the moment when employees collaborate with different expertise and supplement their different knowledge in a complementary way. To measure this, one looks at the amount of knowledge that is mutually spread out. This is done by taking the average of the individual knowledge potential per relationship he has with an employee. As a third element, it is important to also look at the external environment of the organization. This is for the reason that when the organization has an environment around it with a lot of knowledge, they can underpin more relationships with this knowledge-based environment. And this has a positive influence on the internal relationships within the organizations. Because the more external relationships the organizations have, the more knowledge they can absorb and pass on in internal relationships.

This model is useful because it provides a quantitative view of the knowledge potential in an organization and the organization can thus change the level if desired. It contains all forms of knowledge, both explicit and implicit, and the transfer of knowledge to others (synergy). The authors concluded that synergy plays a very important factor that an organization must respond to. When the number of employees in an organization grows, the synergy will also grow. From this we could



make some assumptions. This model can lead to greater competitiveness towards other organizations by making good use of their knowledge potential and by making it easier to link an employee's wages to their knowledge (Bivainis & Morkvėnas, 2012).

3.5.3 Measuring individual knowledge after a training

When employees of an organization have undergone training, it is important to evaluate this training. As mentioned earlier, measuring knowledge is not easy and sometimes it is even claimed that only the outcomes can be measured. In this section I want to focus on the outcomes of a training and more specifically what knowledge individuals get from a training

As a framework I use the **four-level model of Kirkpatrick** (1996). This is the most popular and still very current model to evaluate a training. Kirkpatrick distinguishes four levels or techniques with which he evaluates a training program (Arthur, Bennett, Edens, & Bell, 2003; Salas & Cannon-Bowers, 2001; Kirkpatrick 1996).

The first level is the reaction. In this level you measure the feelings of the individual, how he experienced the training program, his satisfaction. This is important because people get the most benefit from a training when they actually find it interesting and fun. "Are the trainings motivated to learn?"

The second level includes learning. By this we mean measuring the acquired knowledge, the improved skills or the attitudes changed due to the training. This is more specifically about learning new principles, facts and techniques. "Did the trainees learn the needed skills and use the resources they were given?"

The third level is the behavioral level. Here, it is measured whether the individual effectively applies the desired behavior from the training to his work. If the participants change their on-the-job behavior because of the training. In other words, this is about transfer. "Did the trainees transfer the skills to the workplace?"

The fourth level includes the final results of the training. More specifically, this concerns financial results, increased production and / or quality, reduction of costs, It includes the effects on the business or environment resulting from the trainee's performance. "Is the desired organizational impact being felt?" (Kirkpatrick, 1996; Moldovan, 2016).



At the first two levels (reaction & learning) the trainee evaluation is dominant in relevance, while at the last two levels (behavior & results) the employer evaluation is dominant in relevance. The higher each level from level one to four), the more difficult it is and the more time it takes to measure and evaluate the behavioral change (Kirkpatrick, 1996; Moldovan, 2016; Erasmus+, 2016). But also, the more important and meaningful it is to measure these levels (Kirkpatrick, 1996).

An indicator for the process of the training evaluation is given by the European Quality Assurance in VET. The new **eQvet-us training outcome evaluation model** (consist as an improvement of the Kirkpatrick’s model) is going to be used to measure information about trainee and course in various moments, as depicted in figure 2.

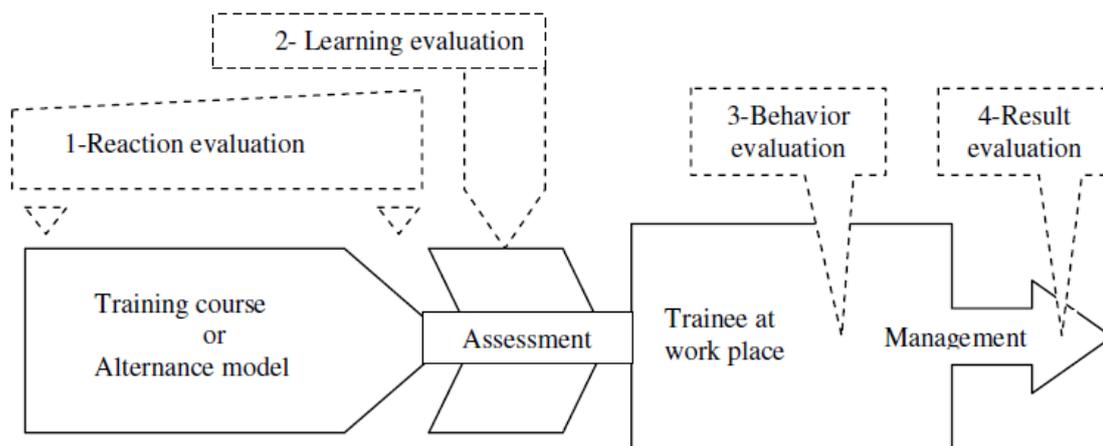


Figure 2. Remark. Taken from “Training Outcome Evaluation Model” door L. Moldovan, 2016, *Procedia Technology*, 22, p. 1186.

Reaction is measured from just before the course starts, and these data will be collated with immediate feedback from tests offered towards the end of the course, collecting information from trainees about their impression, what they felt, course content, teacher ability to deliver training, handouts, infrastructure, etc.. This can be done by for example a survey or other methods to get the trainees feedback about the training, including how well they learned, how well the training materials were designed, and how well the trainer performed.



Learning is measured after the beginning of the course using intermediate and final assessments and exams. It can be measured by a knowledge, skill, ability evaluation/test.

Behavior evaluation is performed after 2-3 months the course has ended with information from graduates and employer. The objective is to explore the usefulness of the course for the graduate and organization. This can be measured by an 'on-the-job performance' observation. Here we observe the employee's real on-the-job behavior at the workplace to see if he is correctly applying the knowledge, skills, abilities or attitudes the training was intended to convey. This may include a comparison of observations made before and after training, and can include observations from customers, co-workers.

The result evaluation is performed 4-6 months after the course has completed with information also from graduates and mainly from employer in order to explore the return of investment (ROI) of the course. A method to measure this level is to analyze data to determine the effect of the training on key performance indicators such as: member satisfaction, client satisfaction, safety behaviors, higher revenues, return of investment, etc. (Kirkpatrick, 1996; Moldovan, 2016; Erasmus+, 2016).

Since the second and the third level, namely which knowledge individuals get from a training and how they transfer it to the workplace, fits the most with this research, I will focus more on these two. Associated with the second level (learning), Kirkpatrick (1996) gives some guidelines on how an organization can measure the effect of learning after a training. A first guideline includes the fact that an organization can best use a before-and-after approach. In this way one can determine whether the knowledge actually comes from the training. The skills that individuals have been taught can be measured by, for example, a test in which the person must demonstrate his skills, both before and after the training. The knowledge that has come out of a training is a more difficult aspect to measure. This can be done by asking employees about their knowledge beforehand on the basis of, for example, a test. This test can also be taken afterwards in order to view the difference. It can be in a form of a standardized or personal test (Kirkpatrick, 1996). This test can include a written test, an oral exam, a demonstration of a real-life job skill in the real or simulated work environment, the completion of a project, or other forms of evaluation. (Kirkpatrick, 1996; Moldovan, 2016). However, not all learned knowledge will always appear from this test. Usually a test only assesses the actual acquired knowledge from this specific training and is therefore limited. As a second guideline, Kirkpatrick gives the option to use, as far as possible, a control group that doesn't follow the training. This makes the difference even clearer. Finally, he also gives the tip to statistically display the results so that learning can also be proven effectively. If



the results of learning prove positive, this should give rise to action (Kirkpatrick, 1996).

Associated with the third level (behavior), Kirkpatrick gives some guidelines for an organization as well. He recommends using a focus group, if feasible, to measure the transfer. It is important to allow enough time for a change in behavior to take place. Another method he recommends is a survey or interview on one of the following groups: trainees, their bosses, their subordinates, and others who often observe trainees' behavior on the job (Kirkpatrick, 1996). An on-the-job performance-test is an effective way to measure this level. Here we observe the employee's real on-the-job behavior at the workplace to see if he is correctly applying the knowledge, skills, abilities or attitudes the training was intended to convey (Kirkpatrick, 1996; Moldovan, 2016).

According to the right sample, he gives the guideline to evaluate 100 trainees. Besides this, he gives the recommendation to repeat the evaluation at appropriate times and to consider the cost of evaluation versus the potential benefit (Kirkpatrick, 1996).

3.5.4 How do European institutes measure knowledge/skills/competences?

When we look at what knowledge/skills/competences related to training means to European institutes and how they measure it, we see an important policy that is responsible for this, namely VET (the Vocational Education and Training). VET is a key element of lifelong learning systems equipping people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labor market (European Commission, sd.). As seen right before, Kirkpatrick's model has been improved by the European Quality Assurance in VET (the new eQvet-us training outcome evaluation model) (Kirkpatrick, 1996; Moldovan, 2016; Erasmus+, 2016).

The Commission's work on VET is supported by two agencies:

- European Centre for the Development of Vocational Training (Cedefop): is one of the EU's decentralised agencies. Founded in 1975 and based in Greece since 1995, Cedefop supports the development of European VET policies and



contributes to their implementation underpinned by its research, analyses as well as information on VET systems, policies and practice, skill needs and demands in the EU. The agency is helping the European Commission, EU Member States and the social partners to develop the right European VET policies.

- European Training Foundation (ETF): contributes, in the context of EU external relations policies, to human capital development. This is defined as work that contributes to the lifelong development of individuals' skills and competences through the improvement of VET systems (European Commission, sd.).

There are several instruments that has already been done at European level for the Vocational Education and Training (VET), such as:

- The European Credit System for Vocational Education and Training (ECVET): is a technical framework which supports the transfer, recognition and accumulation of learning outcomes. ECVET provides a set of principles and tools that facilitate the process of learner recognition, with a view to achieving a qualification (Erasmus+, sd.).
- The European Quality Assurance Reference Framework (EQAVET): a community of practice that promotes European collaboration in developing and improving quality assurance in VET (EQAVET, sd.). It's a reference instrument designed to help EU countries promote and monitor the continuous improvement of their VET systems on the basis of commonly agreed references (European Commission, sd.).

In this paper we use the themes and projects of Cedefop in connection with learning outcomes of a training evaluation. Cedefop helps us understand how Europe overview qualifications. Qualifications can be seen as the certificates and diplomas awarded following education, training and learning. Measuring qualifications can be vital in modern societies. They influence our ability to get a job, practice a profession, pursue lifelong learning and move between countries. They also affect our general social standing and status. Qualifications are also important:

- For employers, signalling what can be expected from a potential employee;
- For education and training, confirming that a candidate has successfully achieved a set of learning outcomes;
- For policy makers, as a focal point of education and training policies, providing among others a tangible output of learning processes (Cedefop, sd.).



Qualifications are increasingly being defined and written based on a learning outcomes approach, which best expresses what the qualification holder is expected to know, be able to do and understand. Learning outcomes are also the “glue” holding together the common EU tools and principles that lead to higher consistency in employment, education and training policy across Europe. These include:

- The European Credit System for Vocational Education and Training (ECVET);
- Europass: a portfolio of five documents, designed to make skills and qualifications clearly and easily understood across Europe;
- European Quality Assurance in Vocational Education and Training (EQAVET);
- Validation of non-formal and informal learning: a system to identify, assess and certify all forms of learning to use this learning for advancing individuals' career and for further education and training (Cedefop, sd.).

European qualifications are increasingly included in national qualification frameworks (NQF) linked to the European Qualifications Framework (EQF).

➤ **The European Qualifications Framework (EQF)**

When we look at knowledge/skills/qualifications on a broader perspective, namely on the European perspective, we see an important framework that is always being referenced to: the European Qualifications Framework (EQF).

The EQF is a framework with eight different reference levels of qualifications defined in terms of learning outcomes: knowledge, skills and autonomy-responsibility. These three components have been showed in previous section. This means that we look at what an individual (a learner) knows, understand and is able to do after a learning process such as a training or development (Nogueira, 2013; Cedefop, sd.). These framework makes understanding and comparing qualifications easier within and between countries, while they encourage countries to rethink and reform policy and practice on education, training and lifelong learning (Cedefop, sd.).

Why does the European Union (EU) use a framework as EQF? Because not all certificates or diplomas in different the EU-countries are valued the same. For this reason, the EU developed a translation device to make qualifications more readable in order to promote workers' and learners' mobility, facilitating their lifelong learning



and occupational mobility across Europe (European Commission, sd.). As mentioned before, in the 21st century we are increasingly living in a knowledge economy. To comply with this, a country has to achieve more and better jobs and growth and that is what this framework is aimed to do (Nogueira, 2013).

The implementation of the EQF was based on the Recommendation on the European Qualifications Framework for lifelong learning adopted by the European Parliament and the Council of the EU on 23 April 2008. On the 22nd of May of 2017, the Council of the EU adopted a revised EQF replacing the Recommendation of 2008 (European Commission, sd.). To implement these European Qualifications Framework, country's develop National Qualifications Frameworks (NFQ). This means that all countries committed to the EQF are developing or implementing national frameworks mostly covering all levels and types of qualifications. Thus, they can compare their qualifications across sectors and countries (Cedefop, sd.)

The eight levels referred in the EQF go from the most basic qualifications to the most advanced qualifications. With these levels, it should be easier to read and understand qualifications across different countries and systems. Like this, the EQF supports cross-border mobility of learners and lifelong learning across Europe. It can be seen as a bridge between national qualifications systems (Cedefop, sd.).



Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications (Cedefop, sd.).

	Knowledge	Skills	Responsibility and autonomy
	In the context of EQF, knowledge is described as theoretical and/or factual.	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	In the context of the EQF responsibility and autonomy is described as the ability of the learner to apply knowledge and skills autonomously and with responsibility
Level 1 The learning outcomes relevant to Level 1 are	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
Level 2 The learning outcomes relevant to Level 2 are	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy
Level 3 The learning outcomes relevant to Level 3 are	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems
Level 4 The learning outcomes	Factual and theoretical knowledge in broad contexts within a field of work or	A range of cognitive and practical skills required to generate solutions to specific problems in a field of	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but



relevant to Level 4 are	study	work or study	are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5 ^[1] The learning outcomes relevant to Level 5 are	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others
Level 6 ^[2] The learning outcomes relevant to Level 6 are	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups
Level 7 ^[3] The learning outcomes relevant to Level 7 are	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8 ^[4] The learning outcomes relevant to	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained



Level 8 are		critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	commitment to the development of new ideas or processes at the forefront of work or study contexts including research
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Figure 3. The European Qualifications Framework (EQF). Taken from *Cedefop, sd.* (<http://www.cedefop.europa.eu/en>)



➤ **Measuring competences and soft skills**

This previous part helps us to see a broader view on how Europe measure and look at qualifications/competences. In this part we look more specific on the level of competences related to soft skills. This is relevant because these levels are made in support with Erasmus+ and is very concrete in explanations and measurements. They are also divided into explicit and implicit which is very relevant to our research question.

We see four stages of competences, each stage implies increasing levels of awareness on one's own competence, autonomy in the skill performance, responsibility and taking risks of own actions.

0	NOVICE: the candidate/worker may have theoretical knowledge but has no (or little) practical experience of the skill and needs to be supported to put into practice what s/he knows. S/he relies on explicit rules and needs constant supervision and support.	Explicit rules (instructions, procedures, manuals, models,...)
1	BEGINNER PERFORMER: the candidate/worker has some practical experience of the skill and can perform it under significant supervision and guidance and only in basic routine and predictable tasks; A/he still relies on explicit rules and has little individual responsibility in putting into practice the skill.	
2	CAPABLE PERFORMER: the candidate/worker performs the skill in a range of contexts relying to both explicit and implicit rules. S/he plays a sufficient level of individual responsibility and autonomy in routine actions only; s/he may need supervision in more complex circumstances;	Implicit rules (unspoken/unwritten rules, cultural aspects, personal experiences/interactions, intuition...)
3	PROFICIENT PERFORMER: the candidate/worker performs the skill in complex and non-routine contexts, with significant responsibility and autonomy using intuitive and flexible approaches. S/he has high levels of performance and is able to adapt to the context changes.	
4	EXPERT: the candidate/worker is completely autonomous to perform the skill in any situations s/he meets (even in highly complex ones); s/he has excellent level of performance, can help others to develop the skill and act as change actors (can teach to others).	

Figure 4. *Remark.* Taken from "Cross-country survey on soft skills mostly required by companies to medium/high skilled migrants. Methodological approach for a common framework of Soft Skills at work" by E. Dall'Amico and V. Simonetta, 2015. *Ceipiemonte S.c.p.a.*, p. 59.

Dall'Amico & Simonetta (2015) , in support with Pierre Carrolaggi, have made a top 12 of soft skills according to the labor market priorities. These 12 soft skills have been converted into a table with the corresponding level of competences from level 0 (novice) to level 4 (expert) in the soft skill. Here you find the following soft skills taken from "Cross-country survey on soft skills mostly required by companies to medium/high skilled migrants. Methodological approach for a common framework of Soft Skills at work" by E. Dall'Amico and V. Simonetta, 2015. *Ceipiemonte S.c.p.a.*;



Skill	Skill description	0 (novice)	1 (Beginner performer)	2 (Capable performer)	3 (Proficient performer)	4 (Expert)
Cluster A – Navigate the world of work						
Adaptability and flexibility	<p>Capacity to:</p> <ul style="list-style-type: none"> • accept changes as a new challenge, • adapt to the new situations and modify approaches if required by the context. 	<ul style="list-style-type: none"> - Has difficulties in adapting to changes at work - Never proposes re-assignment of tasks and deadlines. - Does not understand the reasons why to adapt to changes in routine-situation. 	<ul style="list-style-type: none"> - May adapt to adapt to changes at work but needs to be encouraged or pushed to do so. - Starts to propose re-assignment of tasks and deadlines. - Tends to adopt the same approach in different situations (repetition of past success stories). - May understand the reasons why to adapt to changes in routine-situation. 	<ul style="list-style-type: none"> - Understands the need to diversify own approach according to different situations and asks for others' help or suggestions to adapt own behaviours to the needs of new situations. - Begins to adapt to changes at work or re-assignment of tasks and deadlines without being pushed to do so by others, but needs feedbacks and incentives. - In complex situations may meet some difficulties in performing adaptability and flexibility. 	<ul style="list-style-type: none"> - Able to quickly adapt to changes while remaining focused on deadlines, without any assistance. - Able to diversify own approach freely, if required by the context. - Able to modify the priority order of tasks and goals if requested by the situation. 	<ul style="list-style-type: none"> - Able to make others understand the changes which the situation requires. - Able to articulate a compelling change vision for the organization where works. - Able to act as an aware change agent within the organization.
Motivation	<ul style="list-style-type: none"> • A t t i t u d e t o b e energetic, enthusiastic and capacity to self-motivate and motivate others. 	<ul style="list-style-type: none"> - Has a negative vision of work and does not find any driving forces (internal or external) to encourage him/her to fulfill the tasks. - Has an attitude that shows that s/he is not motivated at work (or to perform the given tasks) 	<ul style="list-style-type: none"> - Needs feedbacks or encouragement to seek new learning opportunities and to propose own ideas. - Needs to be motivated by others at work 	<ul style="list-style-type: none"> - Begins to reflect on own performance as an occasion for further job and personal improvement. - Still needs others' feedback and incentives to seek new opportunities, but starts to be pro-active. - Starts to find self-motivation forces in some cases, but still needs to be encouraged. 	<ul style="list-style-type: none"> - Has a pro-active attitude and reflects on own performance and job experience as an integral part of own development - Shares with peers, asks for feedbacks from others on own strengths and weaknesses to improve oneself. - Looks for learning opportunities which may improve his/her performance. - Has an endogenous motivation (coming from within). 	<ul style="list-style-type: none"> - Able to treat every activity as a source of insights both for him/herself and others. - Devotes him/herself to a continuing self-improvement (both technical and behavioural). - Able to motivate other persons working with him/her.



Skill	Skill description	0 (novice)	1 (Beginner performer)	2 (Capable performer)	3 (Proficient performer)	4 (Expert)
Cluster A – Navigate the world of work						
Managing responsibilities	<p>Capacity to: have understood the task assigned and ask assistance if needed,</p> <ul style="list-style-type: none"> • take responsibility for one's own actions without blaming anyone else for something s/he is liable for. 	<ul style="list-style-type: none"> - Has difficulties to take own responsibility for his/her tasks. - Needs that others explain him/her the responsibilities which are related to the tasks s/he has been assigned to. 	<ul style="list-style-type: none"> - Can complete a limited set of well-defined tasks and may need guidance to identify the tasks, risks and responsibility linked with the situation and his/her role. - Takes responsibility for personal actions only in routine situations (where s/he can use past experiences). - In non-routine needs to ask for support. 	<ul style="list-style-type: none"> - Fully understands tasks, purposes, risks and associated responsibilities related to the situation and his/her role. - Analyses situations and describes its associated risks and cause-effect relations. - Is aware of how his/her tasks contribute to the works of others. - Feels personal ownership of the outcome of own actions. - In non-routine situations attempts to take responsibility for personal actions only under the supervision of a coach. 	<ul style="list-style-type: none"> - Understands how own tasks and role integrate with the contribution of others. - Analyses situations and takes calculated risks. - Works independently and collectively with a strong sense of responsibility. - Feels personal ownership of goals, plans, decisions and outcomes, being aware of possible mistakes. - In non-routine situations takes responsibility for personal actions independently of others and identifies changes to improve collective outputs. 	<ul style="list-style-type: none"> - Considers own tasks and role in terms of his/her contribution to achieve broader goals inside the organization. - Analyses situations, takes risks and decisions also when not all information is available, if the situation requires a quick intervention. - Able to adapt and renegotiate roles and responsibilities according to the circumstances. - Highly autonomous, takes full responsibility and ownership for all aspects of own work. - Able to recognize and remind others their own responsibilities.
Time management	<p>Capacity to:</p> <ul style="list-style-type: none"> • Be punctual • Organize and respect schedules, determining priorities • Manage workflows and meetings efficiently. 	<ul style="list-style-type: none"> - Has difficulties in being on time and respect deadlines. 	<ul style="list-style-type: none"> - Needs helps to rightly prioritize tasks and goals. - Needs to refer to fixed frames or past experiences to respect schedules: is able to get work done on time only in routine-situations. - Interruptions or programme changes may invalidate his/her time effectiveness and efficiency. 	<ul style="list-style-type: none"> - Can work on several tasks or projects at the same time dividing time and resources appropriately, not only in routine but also in more complex situations. - In teams can act as a good timekeeper. 	<ul style="list-style-type: none"> - Highly able to evaluate the priority of tasks and work in every situation. - Has a high autonomy and self-discipline in controlling and managing interruptions or changes and assuring time-effectiveness and time-efficiency. 	<ul style="list-style-type: none"> - Able to manage both one's and others' time - Able to guarantee time-effectiveness and time efficiency. - Able to lead the others to respect deadlines.



Skill	Skill description	0 (novice)	1 (beginner performer)	2 (capable performer)	3 (proficient performer)	4 (expert)
Cluster B – Social Skills Communication skills	<p>Ability in active listening, repeating, recollecting, interpreting (paraphrasing), empathizing (being aware of others' feelings), giving feedback.</p> <p>Capacity to:</p> <ul style="list-style-type: none"> • speak clearly and politely to any typology of speakers (heads, colleagues, clients, etc.), • use body language, gesture, tone/pitch of voices properly at different levels and contexts, • know which medium to use when communicating at different levels and contexts, • present information (including technical) clearly in a style easily understandable, • understand and interpret data (tables, figures, statistical data) accurately to support one's work effectively. 	<ul style="list-style-type: none"> - Generally understands what to communicate, with whom and how in routine work and highly familiar situations. - Is not properly aware of different types of communication and how communication may vary according to the different contexts. 	<ul style="list-style-type: none"> - Is aware of different types of communication (written, spoken, non-verbal) understanding the main features in different contexts (formal, informal, scientific, journalistic...) and how they are important for social interaction. - Is aware of body language and attempts to use it properly in different contexts (non-verbal communication). - Identifies (and learns to follow) communication practices and protocols in use within the organization. - Understands and uses data to support own work. - Follows communication protocols. 	<ul style="list-style-type: none"> - Understands the variability of language and communication forms over time and in different contexts. - Is able to speak and write clearly and express his/her opinions concisely, give feedbacks, understand others and make others understand. - Is able to use properly body language in different contexts. - Understands what to communicate, with whom and how, in routine work situations and in a limited set of unfamiliar situations. - Is able to paraphrase and make additional questions to verify if s/he has understood. - Learns how to identify the requirements of less familiar contexts. - Is able to accurately interpret data and select the appropriate protocols and conventions when communicating in a range of familiar work contexts. - Attempts to use and adapt communication protocols to the context. 	<ul style="list-style-type: none"> - Is able to express his/her opinion (either in favour or against) both in written and spoken language in a convincing manner. - Evaluate pros and cons of media and strategies communication. - Is able to organize information in a systematic way using active listening. - Manages effectively multi-communication channels. - Takes into consideration opinions and points of view of others when communicating and analyses feedbacks. - Is able to understand and recognize the implication of implicit rules governing communication (who communicates with whom, how, goals, status and power of persons involved). - Seeks new strategies in new situations and select appropriate communication protocols and conventions in a broad range of work situations, being aware of the impacts of own choices. - Feels confident in intercultural communication. 	<ul style="list-style-type: none"> - Is able to approach the opinions and arguments of others with an open mind attitude and engage in constructive and critical dialogue in any contexts and circumstances. - Is able to efficaciously formulate arguments and disapprovals without adopting defensive or aggressive attitudes. - Takes accounts of other points of view and is highly sensitive to the impact of both explicit and implicit communication practices and protocols. - Discloses the reactions to his/her message in advance by adapting his/her communication consequently. - Is confident in speaking in a group and in public contexts. - Manages the communication cycle selecting, using and adapting practices and processes in order to optimize maximum impact. - Has a positive pro-attitude towards intercultural communication in order to find personal and professional development opportunities.



Skill	Skill description	0 (novice)	1 (Beginner performer)	2 (Capable performer)	3 (Proficient performer)	4 (Expert)
Cluster B – Social Skills Team working	<p>* Capacity to work in a team and in a collaborative style to achieve results.</p>	<p>- Tends to work alone. Is not able to find his/her place in a working group. - Does not share information.</p>	<p>- Understands the importance of team working, but needs to be encouraged to contribute to workgroup process. - Is aware of personal team working skills. - Seeks to cooperate with others in immediate work context.</p>	<p>- Cooperates with others as part of familiar routine activities and contributes to specific activities which require joint responsibility and reporting. - Plays an active role in workgroup discussions paying attention to the perspectives of others. - Voluntarily keeps others informed of his/her work, shares information, discusses problems and seeks/give help when required. - Is aware of consequences of behaviours which may undermine effective interpersonal relations and group cohesion (e.g. malicious gossip, individual work). - Begins to establish connections with others who can contribute to effective work outcomes (e.g. builds up and cultivates informal networks).</p>	<p>- Cooperates with others to achieve common outcomes - Is able to adapt own behavior when working in team and plays an active role in facilitating group interaction. - Is able to influence the group direction and plays a lead role on occasion. - Looks for strengths in others and finds ways to work with them sharing knowledge, experiences and ideas freely. - Avoids behaviours which may undermine effective interpersonal relations and group cohesion (e.g. private criticisms, prejudices, breaking confidences). - Able to set a good example for others within the work team. - Give others specific feedback information rather than blanket positive or negative statements. - Begins to build and cultivate formal and informal networks within and beyond work context (e.g. community of practices, professional associations...)</p>	<p>- Invests time and energy in building and maintaining effective working relations. - Encourages a collaborative culture within own sphere of influence and acts as a facilitator of group cohesion (encourages an active participation of all members and 'valorizes others' contribution). - plays a lead role in all situations which require effective collaboration, being able to influence, engage and motivate others (also those who are geographically dispersed). - Gives feedback to others in a way that everyone can easily understand. - Actively builds formal and informal networks within and beyond work context, including key people (e.g. theme experts, think tanks, decision makers...)</p>



Skill	Skill description	0 (novice)	1 (beginner performer)	2 (Capable performer)	3 (Proficient performer)	4 (Expert)
<p>Cluster B – Social Skills</p> <p>Conflict management</p>	<p>Ability to:</p> <ul style="list-style-type: none"> • detect a conflict at an early stage without being afraid of calling it “conflict”; • manage a conflict when it arises (and understand which conflicts cannot be solved) • mediate, acting in such a way that one’s and other’s goals will be achieved (win-win approach). 	<ul style="list-style-type: none"> - Increases the conflicts or reduce the possibilities to solve them by remaining firm on his/her position without making efforts to change his/her mind or attitude - Is often a source of conflict 	<ul style="list-style-type: none"> - With guidance detects a conflict and identify how many parties are involved in it. - With guidance may identify impacts of own emotions and behaviours on others which may lead to conflict in a work situation. - If encouraged, may seek support from peers or supervisors when dealing with conflicts. - Let the conflict be managed by others. 	<ul style="list-style-type: none"> - Listen freely the perspectives of each party involved in the conflict and reports accurately and objectively. - Understands the difference between solving and managing a conflict and understands when a conflict cannot be solved. - Tries to find solutions, recognizes and use a small set of strategies to contain the conflict avoiding further escalation. - If unable to resolve a major conflict directly, seeks advice and assistance of others in accordance with workplace protocols. 	<ul style="list-style-type: none"> - Listen freely and asks questions to clarify concerns and needs in order to identify the root problem. - Reflects on personal reactions to behaviours and perspectives which may undermine work relationships and contribute to conflict. - Use a wide set of strategies to contain and manage the conflict, avoiding further escalation. - If involved personally in a conflict, is able to control his/her behaviours when other explain their feelings and different perspectives, resisting blaming or becoming defensive or aggressive. - Seeks specialist advice if necessary. - Reflects on conflict resolution process and outcomes, being aware that a conflict may arise from the resolution way of a previous one. - Is aware of cultural factors that can be sources of conflicts. 	<ul style="list-style-type: none"> - Identify in advance, also intuitively, possible conflicts which may occur in the future and seeks to establish a comprehension climate avoiding the burst of contrasts. - Acts pro-actively to reduce the conflicting atmosphere clearing real needs and issues of all the parties involved. - Able to confront problems quickly and directly, engage with counterparts to reach agreement according to a win-win approach (where all the parties can optimize results). - Able to come up with a conflict resolution using a wide range of strategies on the basis of a plan of actions envisaging shared responsibility for the solution and consequences. - Able to act as a negotiator both inside the organization and outside with counterparts from other cultures.



Skill	Skill description	0 (novice)	1 (Beginner performer)	2 (Capable performer)	3 (Proficient performer)	4 (Expert)
<p>Cluster B – Social Skills</p> <p>Service skills (understanding of others' needs)</p>	<p>Capacity to:</p> <ul style="list-style-type: none"> offer support to others (colleagues, co-workers and clients), identify and respond to client needs (customer orientation), deal politely with clients problems (customer orientation). 	<p>-Performs his/her work without taking into account formal and informal needs of others (employees or clients)</p> <p>-Needs to perform back office tasks because s/he has difficulties to manage relations with clients.</p>	<p>- Understands that everybody has one's own need to be satisfied.</p> <p>- Able to actively listen clients'/others' needs and communicate politely.</p> <p>- Offers help if asked.</p> <p>- Able to identify clients'/others' needs and use past experiences to meet them appropriately (routine work situation).</p> <p>- In complex situation needs guidance in fitting clients'/others' needs.</p>	<p>- Understands clients'/others' perspectives.</p> <p>- Able to take care of clients'/others' claims and manage them politely, understanding when to involve a supervisor.</p> <p>- Offers help voluntarily.</p> <p>- Communicates with clients'/others giving reports on how their needs have been fit.</p>	<p>- Able to adapt to clients'/others' needs.</p> <p>- Able to analyse the clients'/others' interests as well as the constraints of the situation.</p> <p>- Is highly sensitive to the impact of customers' services and customers' satisfaction within the organization.</p>	<p>- Proposes new solutions to improve customers' services.</p> <p>- Encourages a customer-oriented attitude within the organization (both external and internal customer driven).</p>



Cluster C – Achieving results						
Decision making	<ul style="list-style-type: none"> Capacity to: <ul style="list-style-type: none"> • make a choice from a range of possibilities prioritizing actions, • use different decision-making approaches and reflect on the outcomes of decisions. 	<ul style="list-style-type: none"> - Always relies on superiors or colleagues to take decisions 	<ul style="list-style-type: none"> - Follows step by step, instructions (verbal or written) for routine decisions directly relevant to own role, selecting from a limited set of pre-determined options. - When faced with decisions on issues not clearly covered by guidelines, needs encouragement to seek assistance from others. - Takes responsibility for routine low-impact decisions within familiar situations. 	<ul style="list-style-type: none"> - Makes decisions on the basis of the guidelines and protocols of the organization, being able to interpret and adapt them to unfamiliar work situations. - Takes responsibility for routine and low-impact decisions within familiar work contexts and in situations related to own role. - If the situation is not clear enough, seeks assistance and asks for suggestions to more competent peers or supervisors. 	<ul style="list-style-type: none"> - Makes decisions quickly and intuitively in routine situations which require immediate attention relying on key variables based on past experience or to new variables resulting from the analysis of the context. - Makes decisions in non-routine situations and, in case specific rules or protocols are absent, identifies and evaluates different options. - Takes responsibility for the outcomes of routine and non-routine decisions related to own role. 	<ul style="list-style-type: none"> - Has a diversified approach to decision making, based on the awareness that there is no pre-defined formula and that "it all depends" on context. - Makes rapid decisions when required in any situations, based on multi-factor analysis and risk evaluation with a systemic and analytical diagnosis of the context. - Takes responsibility for high impact decisions in complex situations with involvement of many variables/constraints. - Can take difficult decisions and have them accepted/supported by others (also if they have negative impact on one side).



Skill	Skill description	0 (novice)	1 (Beginner performer)	2 (Capable performer)	3 (proficient performer)	4 (Expert)
<p>Cluster C – Achieving results</p> <p>Problem solving</p>	<p>Capacity to:</p> <ul style="list-style-type: none"> • find and solve effectively routine and non-routine problems to achieve work goals, and anticipate problems and reflect on the outcomes. 	<ul style="list-style-type: none"> - Has difficulty to respond to any problems which may arise at work (even the routine ones). 	<ul style="list-style-type: none"> - May recognize and respond to highly routine problems in the work context. - Follows, step by step instructions to solve a small set of routine problems strictly linked to own role. - Needs encouragement to seek assistance from others in unfamiliar work situations. - If no instruction or advice is available, attempts to use a "trial and error" approach with a limited awareness of the potential impact of solutions envisaged. - In case of unfamiliar situations tries to solve problems by applying to past success-stories and solutions which may appear to have some relevance to the current situation. 	<ul style="list-style-type: none"> - Recognizes and responds quickly to predictable and less predictable problems in familiar work contexts. - Understands when to take responsibility for problem solving or to notify others and ask for others assistance. - When tackling unfamiliar problems, applies formal procedures, but is able to split up complex issues into smaller manageable parts and evaluate different options to act. - When using a "trial and error" approach has full awareness of the potential impact of solutions envisaged. - Seeks feedbacks and advice before implementing a solution. 	<ul style="list-style-type: none"> - Recognizes and anticipates a certain set of problems, being able to detect early warning signs and adopt contingency plans. - Able to analyse the general problem by splitting it into smaller problems according to their "cause and effect" relation. - Able to re-define the problem and analyse the underlying causes, even the most concealed ones (explicit and implicit problems). - When tackling with new and complex problems, is able to combine analytical processes and intuition, including lateral thinking, to generate possible new solutions. 	<ul style="list-style-type: none"> - Recognizes and anticipates complex problems involving multiple variables. - Recognizes that the problem may be surface indicator of a deeper one and is able to define the "tree of problems" based on "cause and effect" relations so as to identify the prime root cause. - Use both analytical and lateral thinking techniques to identify issues and generate possible solutions. - Invest time to reflect on the outcomes. - May ask for further information or advice from relevant experts.



Skill	Skill description	0 (novice)	1 (Beginner performer)	2 (Capable performer)	3 (proficient performer)	4 (Expert)
Cluster C – Achieving results Creativity and Innovation	Ability to: <ul style="list-style-type: none"> • come up with new solutions, approaches, etc., • think "out of the box". 	<ul style="list-style-type: none"> - Always relies on others to find a solution to a new situation. - Does not support any new idea that can potentially create change in his/her working environment. 	<ul style="list-style-type: none"> - May recognize the opportunities for the application of new ideas proposed by others when they imply immediate and obvious benefits to his/her job. - Has limited awareness of the difference between analytical and lateral thinking. - Needs to be encouraged to think "out of the box". 	<ul style="list-style-type: none"> - Recognizes the value of creativity for the organization and his/her work. - Supports the application of new ideas proposed by others when the benefits to his/her work are immediately obvious. - Contributes to the design and adoption of new approaches and methods. - When the solution to a problem is not obvious, recognizes the value of looking for different perspectives. - Applies some basic principles of analytical and lateral thinking. - Needs to be encouraged to think "out of the box". 	<ul style="list-style-type: none"> - Recognizes that the current way of working is not the only one way of doing something and takes mental risks to explore other possibilities. - Invests time and energy in looking for new ideas, opportunities, changes in procedures. - Takes advantages from others perspectives and ideas as a stepping stones to "think out of the box", being able to integrate and adapt others' perspectives. - Uses a combination of analytical and lateral thinking to tailor ideas to suit needs. - Feels free to express own flow of ideas and contributes to create a comfortable climate where others feel free to suggest, explore, adapt and adopt new ideas. 	<ul style="list-style-type: none"> - Uses mental questioning and doubting to explore new ideas in work situation (e.g. "Is this the only way...?", "Are there better ways to...?", "Shouldn't be better if we..."). - Reframes and redefines problems in order to get new perspectives and generate new ideas. - Is used to thinking "outside of the box" and rethinking current approaches or ideas. - Is able to explore and incubate new ideas which can lead to radical changes from the current situation. - Acts as a facilitator for creativity and innovation.



Skill	Skill description	0 (novice)	1 (Beginner performer)	2 (Capable performer)	3 (Proficient performer)	4 (Expert)
<p>Cluster C – Achieving results</p> <p>Critical and structured thinking</p>	<p>Ability to:</p> <ul style="list-style-type: none"> analyze and valorize information, accept construction criticism. 	<ul style="list-style-type: none"> - Has difficulties in thinking critically (evaluating a situation from different points of views) - Does not accept critics by others also when they might be constructive. 	<ul style="list-style-type: none"> - Needs to be encouraged to think critically. - Understands that criticism may be constructive, but needs still to be helped to accept it as an opportunity for own development. 	<ul style="list-style-type: none"> - Understands that others' opportunity for own development. - Attempts to think critically (evaluating a situation from different or non-conventional points of views). - Understands not only what s/he is learning but also why and how it can be used at work.. - Is able to use own priorities and criteria to select and adapt information. 	<ul style="list-style-type: none"> - Analyses, evaluates, selects information and valorizes it according to the context needs and constraints using different and non-conventional points of views. - Is able to look beyond immediate application of the information acquired and to envisage future implications. - Is able to define purposes and objectives which are clear, reasonable, and fair, but also others that may appear unclear, inconsistent, unrealistic, and unfair. 	<ul style="list-style-type: none"> - Is able to decide if an information or idea is worth, combining analysis and intuition, also if it is non-conventional. - Is able to rethink an idea or redesign information. - Help and leads the others' to look beyond immediate application of the information acquired and to envisage future implications.



3.6 Instruments to retain/ share knowledge in an organization

It has now been demonstrated that knowledge management in an organization offers many advantages and that it benefits everyone from sharing and retaining knowledge. In this section I look at a few instruments or tools that contribute to this.

When we speak about retaining knowledge in the organization, we naturally link this to the share of knowledge. Because when knowledge is shared, this will reduce the chance of losing knowledge when an employee leaves the organization. The main concepts that authors use to interpret knowledge sharing are 'knowledge sharing' and 'knowledge transfer'. By knowledge sharing or knowledge transfer we mean the process whereby one individual transfer his knowledge to the other individual who familiarizes this knowledge (Deceunynck, 2000-2001). It is therefore a matter of giving and taking where there is a sender and receiver (Van Den Hooff & de Leeuw Van Weenen, 2004). This is the perspective on the individual. We can also approach knowledge transfer at an organizational level where a unit of the organization (department, team, etc.) is influenced by the experience of the other (Argote & Ingram, 2000). Hereby we want to create innovation, solve problems or implement new procedures (Cummings, 2004). The ultimate goal of knowledge sharing or transfer (after a training) is to retain knowledge in the organization and to ensure knowledge transfer. By knowledge transfer we mean the extent to which employees apply their acquired knowledge after a training, education or project in their daily work context (Lievens, 2015).

3.6.1 The SECI-model

Before discussing some instruments, it is important to pay attention to the difference between implicit and explicit knowledge. This is for the reason that implicit knowledge is more difficult to transfer and share with others and thus to retain in the organization. Therefore, organizations should try to transfer the implicit knowledge to explicit knowledge (Stenmark, 2000) (and then convert it back to implicit knowledge (Arif, Khalfan, Barnard, & Heller, 2012)). This is of great importance to be able to share knowledge and thus lead to innovation (Nonaka and Takeuchi, 1995 in Scully, Buttigieg, Fullard, Shaw, & Gregson, 2013). With this, an organization must consider the personal obstacles to transfer their implicit knowledge to explicit knowledge. In general, I have already discussed this in the section on knowledge securing in an organization, but here it contains the obstacles specifically about implicit knowledge. An organization must consider the personal obstacles to transfer their implicit knowledge to explicit knowledge. Individuals are not always positive about the transfer and this has three main reasons. The first reason is that not everyone is



aware of his own implicit knowledge. The second reason is that we have no personal need to convert our implicit knowledge into explicit knowledge to use our knowledge. The third reason is because we do not want to share our competitive advantage with others (Stenmark, 2000).

Nevertheless, an organization will have to try to convert its implicit knowledge into explicit knowledge. Several studies (including Mackenzie Owen, 2001; Stenmark, 2000; Little & Ray, 2005; Gunnlaugsdottir, 2003) refer always to the same process in order to accomplish this process, and this is the process of externalization in the SECI model of Nonaka (1994). In this process, the implicit knowledge is attempted to be articulated verbally or in writing and made explicit in concrete explanations, models or examples (Mackenzie Owen, 2001).

Arif, Khalfan, Barnard, & Heller (2012) have further developed the SECI model and reduced it to a model for knowledge management. In this way one could retain knowledge in an organization. This model can be seen in figure 5.

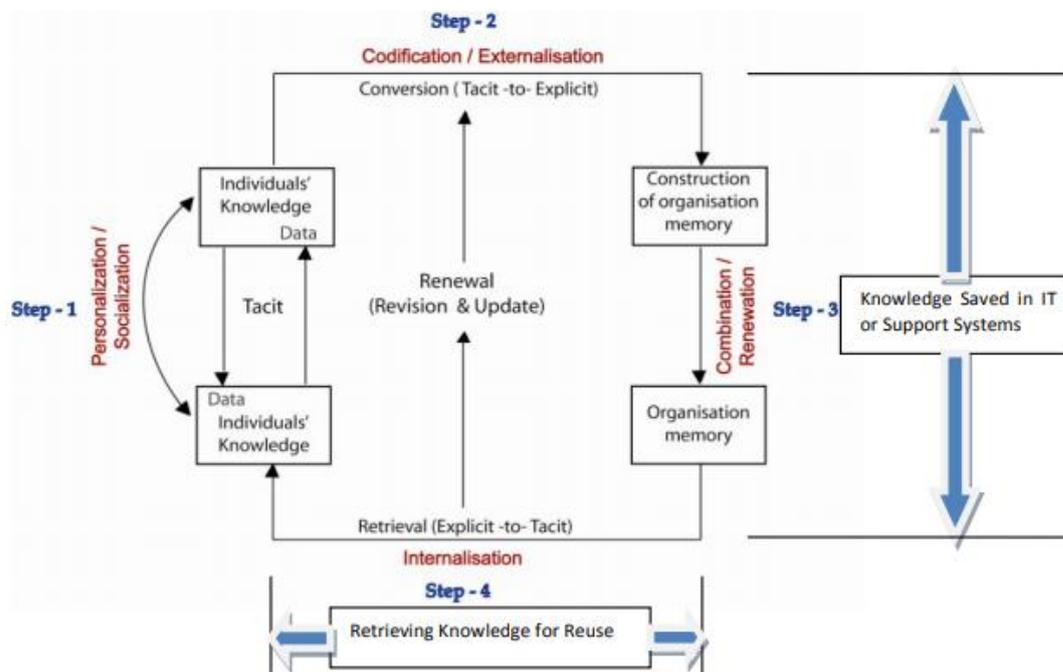


Figure 5. Remark. Taken from "Assessing knowledge retention in construction consultancies: Cases from the UAE" by Arif, Khalfan, Barnard, & Heller, 2012, *Australasian Journal of Construction Economics and Building*, 12 (2), p. 56



This model consists of four steps that should lead to the preservation of knowledge. The first step is the process of socialization where knowledge is shared on an individual level. As was said by Nonaka (1994), an interaction between individuals occurs at this stage. Here one learns by observing, imitating and by exercise. A condition to make this phase lead to success is that individuals are willing to share their knowledge. Organizations can facilitate this by organizing meetings, events, and other social activities (Syed-Ikhsan & Rowland, 2004). The second step is codification or the process of externalization. In this process, implicit knowledge is converted into explicit knowledge (Arif, Khalfan, Barnard, & Heller, 2012). The third step involves the process of combination and renewal. Here the knowledge is stored in the memory of the organization so that it is available to others later. Tools for this are technological distribution channels to open up knowledge for everyone. This can be done by means of internet, intranet, groupware, etc. (see further at technology distribution channels) (Bender & Fish, 2000, in Arif, Khalfan, Barnard, & Heller, 2012, page 58). The fourth step is the process of internalisation where executing something becomes a 'second nature' and the explicit knowledge and the explicit knowledge thus passes to implicit knowledge (Mackenzie Owen, 2001). In this step it is about retrieving knowledge to be able to use it again. It is about whether the knowledge is accessible and easy to pick up by everyone (Arif, Khalfan, Barnard, & Heller, 2012).

As follows, we look at some specific tools that an organization can use to transfer and retain knowledge in their organization.

3.6.2 Organizational culture

As a first item, it is important to have a broader view and ask yourself how we organize an organization that promotes knowledge sharing and therefore also promotes knowledge retention (Mackenzie Owen, 2001). Generally, it can be stated that when an organization likes to retain its knowledge, it is the art to move on to an organizational culture where knowledge sharing is part of the daily work in the organization (Donners & Van 't Klooster, 2000). This is because the organizational culture determines whether the sharing of knowledge succeeds or not (Diepeven, 2005). The importance of the organizational culture in function of knowledge sharing has been demonstrated by many. De Long & Fahey (2000), for example, view the organizational culture as either a tool or barrier to enable knowledge sharing and development. In the best-case scenario, there would be a culture in an organization where openness and trust are central and learning from employees is appreciated. The expertise or knowledge that an employee possesses is considered more important than his hierarchy (Weggeman, 1997). A culture where knowledge transfer



is a daily activity and where there is curiosity about each other's knowledge and advice (van den Brinck, et al., 2012). These elements will automatically lead to more knowledge retention. An organization that attaches importance to knowledge transfer must therefore explicitly make time for this (van den Brinck, et al., 2012).

3.6.3 The supervisor

As stated in the introduction, the ultimate goal is knowledge transfer. To make knowledge transfer possible in an organization, the organization will have to attach importance to its working environment. Mainly the role of the manager can give a breakthrough in whether or not to implement the acquired knowledge into the daily work context. A manager who supports knowledge transfer will promote knowledge transfer. He should pay attention to the participants of a training both before and after training. Before the training it is beneficial if the manager discusses beforehand the content of the training, its usability and the possible application to the work context with the trainee. This would lead to more transfer (Brinkerhoff & Montesino, 1995). After the training, a manager can best discuss how this can be converted into transfer, so how to apply the acquired things in the work context. In addition, it is best if he also discusses the possible obstacles of this transfer. This debriefing will lead to a positive transfer as well (Ford, Quiñones, Sego, & Sorra, 1992; Richman-Hirsh, 2002).

When knowledge needs to be shared, regardless of whether it comes from a training, it is up to the management to encourage the more experienced and older employees to transfer their knowledge. The manager then has to motivate the younger employees to gain new knowledge by making it clear to them that their experience is in their hands and that they have more chance of promotion (Lievens, 2015).

3.6.4 Colleagues

Besides the manager, colleagues can also support the transfer, this is a form of peer support. Colleagues are seen as a very important source for gaining knowledge and learning experience. Especially the task knowledge of a function (see the three forms of knowledge) can be easily passed on by colleagues (Lahti, Darr, & Krebs, 2002). This can be done by all kinds of means. An organization could set up a buddy system whereby colleagues work together to apply the acquired knowledge and experience that they have learned after training to the workplace and support each other in this (Lievens, 2015). Mentor program or coaching is also part of this (Lahti, Darr, & Krebs, 2002). Thereby an employee can always go to his mentor or coach to ask questions about how to do something or to ask knowledge-related questions.



Empowerment is the key to success here. When a mentor or coach shows that he has confidence in the other person's decisions, you stimulate transfer and improve his ability and knowledge (Taylor, 2000). Another form of peer support by colleagues is by holding booster sessions. This is a way in which you will repeat or refresh the training you have followed together with your colleagues. You discuss the training face to face with each other to ensure that everyone effectively applies the acquired knowledge and you do not fall back on old habits. An organization can also encourage employees to periodically give presentations to their colleagues to exchange knowledge (Lievens, 2015).

3.6.5 Content of a job

The content of a job can also influence knowledge transfer to others. Foss, Minbaeva, Pederson, & Reinholt (2009) have demonstrated this in their research. The content of an employee's job can motivate or demotivate him to share his knowledge with others. After all, knowledge sharing is rooted in an individual and his motives and therefore it is important to pay attention to his motivation to share this. The HR-department can play an important role in determining the job content or job creation. The research shows that the content of the job shows a positive result for the motivation to share knowledge with others. The content of a job was divided into three main components, namely autonomy, the extent to which an employee has the ability to complete his tasks from start to finish and receiving direct and clear feedback. When these motivational elements are present in the content of a job, employees will be more motivated to share their knowledge with others. In other words, the three elements have an influence on both giving and receiving new knowledge.

3.6.6 Technological distribution channels

If we want to spread knowledge and share it among the employees, our first step must be to think through which way we want to do this. After all, not all knowledge can be shared effectively in the same way (Deceunynck, 2000-2001). Technological distribution channels can be a useful tool in supporting knowledge management. Some advantages of the use of technology in function of knowledge management are the following. Technology can break through barriers to share information with each other. It also facilitates access to information to a large extent. In addition, it can help in finding knowledge about the knowledge. Easier said, it helps to search for places where you can find the information you want or with which people you can go to get knowledge that is relevant to you (Hendriks, 1999).



The research of KPMG Consulting among 423 respondents from different sectors and different countries, as mentioned above, investigated the use of technology in function of knowledge management. This shows that the most common form of managing and transmitting information is the internet (93%). 78% of the respondents use the intranet for this, 63% use a data warehouse / data mining and 61% use a document management system (KPMG Consulting, 2000). A brief explanation of the distribution channels can provide clarification. An intranet is an internal company network that is always accessible to everyone everywhere. It connects the employees of an organization and is an easy way to look for both business knowledge and external knowledge. Data warehousing is a large data storage of different files and databases. With this tool you can have data at the right time and at the right place, it cleans the data. It also seeks information from different databases so that new information can be generated. Data mining equally analyzes data and eliminates the irrelevant data in order to find a mutual relationship or pattern in the data. This instrument is usually used when looking for unprecedented relationships or trends (Deceunynck, 2000-2001).

Figure 6 of KPMG Consulting shows the percentage of employees experiencing the distribution channels. The blue bar shows how effective and useful this channel is, the green indicates which channel they find the least effective and useful. This shows that the intranet (internal information) is considered the most effective. The internet (external information) is considered the least effective (KPMG Consulting, 2000).



Most / least effective technologies

Which technologies have been most / least effective in helping you manage information?

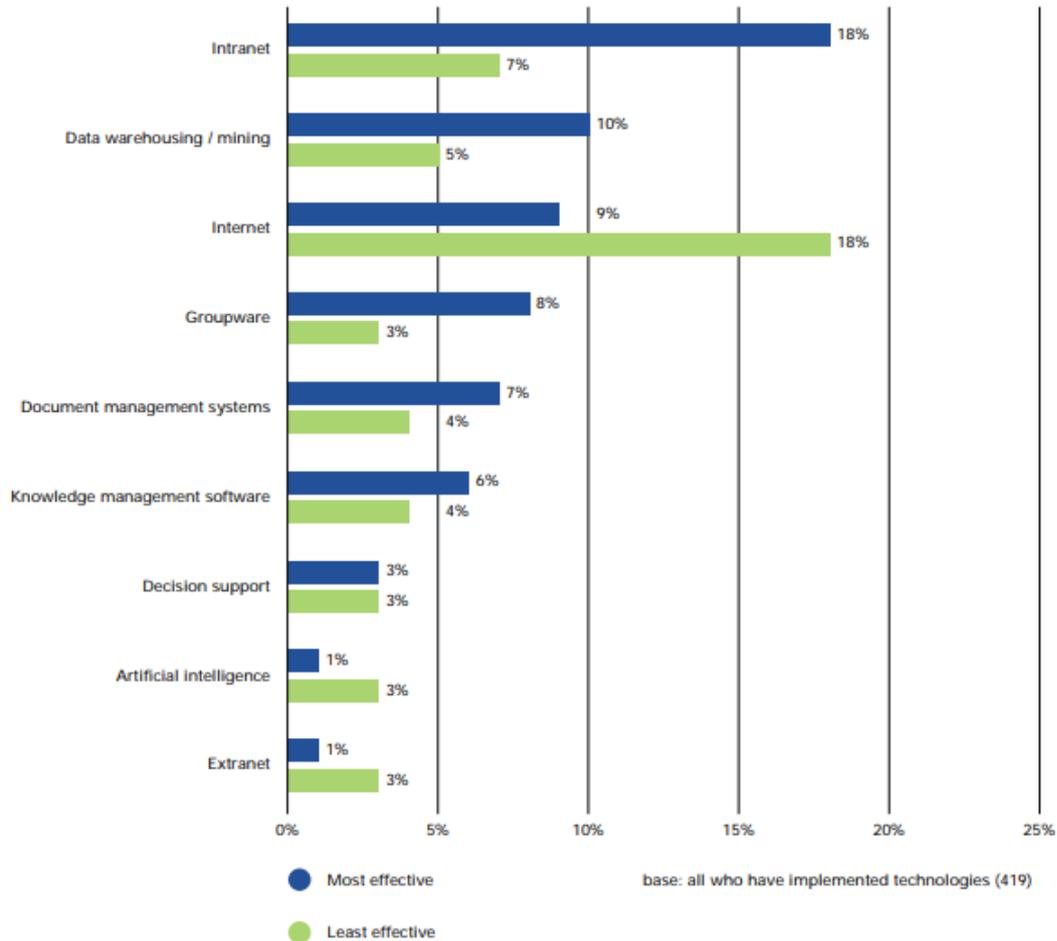


Figure 6. Remark. Taken from “Knowledge Management Research Report 2000” by KPMG Consulting, 2000.

Since the intranet is labeled as the most effective technological tool, I think it is useful to give some advantages and disadvantages. The biggest advantages when using intranet for knowledge management are the following. It is a very simple and accessible device since everyone has access anywhere and anytime and it’s easy to set up. It provides structure for the multiple information that exists within an organization. Moreover, it is advantageous in terms of costs, since there are virtually no costs involved. When spreading new information over the intranet, people no longer have to pay for the printing of papers where the information used to be handed over. When implementing an intranet, you must consider the possible



disadvantages. An organization must keep in mind that employees do not spend too much time on the intranet at the expense of their work. It can also cause chaos when there are no clear rules about publishing or changing documents and suchlike. This can also jeopardize the reliability (Deceunynck, 2000-2001).

Besides these top three channels discussed above, there are many other possibilities that the technology offers to share information with each other. In figure 6 we see, inter alia, groupware. Groupware is a database that contains a collection of software, employees and work processes present in an organization. It contains information sources or references to other information sources. Every employee has access to the database where all newest versions of information sources are open. It is a way to create collaboration and co-creation between employees and to stimulate knowledge sharing. Some characteristics and at the same time some examples to stimulate knowledge sharing are: electronic mail, an online diary of all employees, an online catalogue of books, journal articles, ... or a platform where you can access specific material on the internet or internal databases (Gunnlaugsdottir, 2003). Another possibility is to create applications that promote the creation of knowledge. This can be done in the form of mind mapping, an application that encourages a brainstorm or a helpdesk application (Tyndale, 2002). In addition, one can still deal creatively with technology in the form of a blog or social networking sites. An ordinary site with the existing knowledge of employees is also an option (Lievens, 2015).

3.6.7 Other instruments

In this paragraph I discuss some other tools an organization can implement when specifically, an employee leaves the organization. For example, you can use the *leaving expert interview*. Here, the departing employee is interviewed about his duties, how he applies his knowledge, how he comes up with solutions and records this in results and which colleagues and customers are involved in this. This way his implicit knowledge is transferred to explicit knowledge. The organization then determines to whom and in what way this knowledge is transferred. The successor, at best, is present at the interview. Another instrument is *learning by doing*. In this case, the departing employee will 'train' his successor from practice. The successor thus draws the knowledge from the outgoing employee and in this way stimulates mutual knowledge transfer. Moreover, an organization can also use *communities of practice* (van den Brinck, et al., 2012). These are groups that share something common, such as a problem, the same interests or passions around a topic, and so on. They help each other find solutions and gain new knowledge (Wenger, McDermott, & Snyder, 2002). It includes a platform where this group of people can



share and create their knowledge and multiply through social interaction. Here, all sorts of problems can be discussed and shared among themselves. In this way, knowledge of a departing employee can be transferred to several colleagues at the same time (van den Brinck, et al., 2012).

Finally, there are some other general tips that an organization can apply to transfer and share knowledge. This includes both transferring knowledge or sharing after a training course, as well as the ordinary acquired knowledge through experience. HR offers an important function in retaining knowledge in the organization and can implement these tools (Personeelsnet Media, 2007);

- Training on-the-job;
- Put younger employees together with older and more experienced employees in a project team;
- Provide job rotation (Personeelsnet Media, 2007);
- Make use of a godfather/ -mother for a new employee. In this way the new employee learns the explicit but also the implicit knowledge of the profession;
- Prepare a competency matrix that clearly shows who has which knowledge, so that people know to whom they can turn to;
- Make a FAQ list (Frequently Asked Questions) where problems get a structured answer;
- Make use of video recordings when it concerns an action that is difficult to describe in something like a manual or so on. This is also useful for employees with a different native language (Talentontwikkelaar, sd.).

3.7 Link with retention

Knowledge management includes two major motives. A first motive for knowledge management is the fact that an organization likes to record its knowledge and, if necessary, to make it explicit for the core competences of the organization. Knowledge management also has a second motivation, more specifically the fact that organizations also like to retain the people together with their knowledge in the organization. These employees and their knowledge are crucial to be competitively strong against competition (Lievens, 2015).



The intention of knowledge management is therefore to retain the employees in the organization so that their knowledge is also retained. Because when employees leave the organization, some of the knowledge of the organization disappears as well (De Troyer, 2008-2009, van den Brinck, et al., 2012; Moreels, 2007). And because the knowledge is not always in computers, systems or manuals, but in people's head (Quintas, Lefrere, & Jones, 1997).

As an organization, you therefore have every interest in paying attention to the retention of your staff. As mentioned earlier in this section, an organization will also have to keep an eye on some organizational aspects when implementing knowledge management. An organization will have to create a working environment that meets a knowledge-productive environment. The way in which an organization organizes itself therefore has consequences for the transfer of knowledge, but also for the retention of personnel in general as will become apparent (Kessels, 2005).

3.8 Conclusion

Knowledge is a very broad term which is hard to define in one definition, but in the different given definitions, we see that there are some similar important elements that relate to knowledge: understanding, skills and competences and performance or the result of the acquired knowledge. When talking about knowledge, but also about education and training, there are many ways to distinct different types/forms of knowledge. An organization can benefit to look at these different types of knowledge in function of knowledge management and in function of knowing what type of knowledge you want to acquire from a training.

Knowledge management is an important action for an organization, with lots of advantages as found in several studies. Knowledge management consist about sharing knowledge in an organization and retain this knowledge, so that the knowledge stays (as much as possible) in the organizations when the employees leaves. This is as well the link with the next chapter, retention. When we retain staff, the knowledge of these employees will be retained as well. The intention of knowledge management is therefore to retain the employees in the organization so that their knowledge is also retained.



In order to carry out a good knowledge management, it is very important to measure the knowledge. We have seen different ways to measure organizational/individual knowledge in organization or after a training. The most adaptable way in function of my research question, is the four-level model of Kirkpatrick – or the more improved version, the eQvet-us training outcome evaluation model – where the second level ‘learning’ and the third level ‘behavior’ connects the most with the theme of my research question. A few guidelines have been given on how an organization can measure the effect of learning after a training (associated with level two and three) :

Level two (learning):

- Best measured by a before-and-after approach;
- Measured by a test/evaluation (assessments and exams) or a demonstration where the participants demonstrate their skills and knowledge (before and after the training);
- If possible, another option to measure the learning effect is to use a control group that doesn’t follow the training to see the difference even clearer;
- Tip: statistically display the results afterwards;
- Timing: it is best to measure this right after the beginning of the training.

Level three (behavior):

- Measured by a focus group (if feasible), a survey, an interview, but...
- ... the best way to measure this level is by an observation ‘on-the-job’ where we observe the employee’s real on-the-job behavior to see if he correctly transferred the acquired knowledge, skills and abilities to his workplace;
- Tip: evaluate 100 trainees and repeat the evaluation at appropriate times;
- Timing: after 2-3 months after training.

Another very utile tool to use in my research is the table of 12 soft skills with the corresponding level of competences from level 0 (novice) to level 4 (expert). These 12 soft skills are:

- Time management;
- Motivation;
- Adaptability and flexibility;
- Managing responsibility;
- Team working;
- Service skills (understanding of others’ needs);



- Conflict management;
- Communication;
- Problem-solving;
- Creativity and innovation;
- Critical and structured thinking;
- Decision making.

This table of soft skills can be used when examining our research question. It is in cooperation with Erasmus+ which makes it even more relevant.

We have proven an important link between knowledge and retention. Retaining knowledge and retaining staff can be very advantageous for an organization in order to develop. When retaining knowledge, it is important to share knowledge so that the knowledge doesn't stay in the head of one person. When this one person leaves the organization, his knowledge will disappear as well. We have seen lots of instruments that helps retain/share knowledge in organization. When implementing (one of) these instruments, it is important to pay attention to the difference between implicit and explicit knowledge. This for the reason that implicit knowledge is more difficult to transfer and share with others and thus to retain. A few instruments are: create an organizational culture where knowledge sharing is part of the daily work, having a manager and colleagues who supports knowledge transfer, the content of a job, technological distribution channels, training on-the-job, job rotation, and so on.

4 Retention

4.1 What is retention?

We can describe retention as retaining staff employed in an organization with the intention that they do not switch to other organizations (Rammant & Pepermans, 2003). In other words, we can view retention as the opposite of a course whereby employees voluntarily or involuntarily leave the organization. However, turnover (when people leave the organization) is not always negative. An organization benefits when incompetent employees leave the organization, because they can unconsciously bring costs such as taking bad decisions, demotivation, Because these people leave the organization, one can make way for more suitable candidates. It therefore comes down to retaining the 'right' employees, those who create real added value for the organization and who are difficult to replace (Moreels, 2007). A common concept associated with retention is 'retention management'. With this concept we mean to find and to commit employees. To find out why employees stay in or leave the organization (Rammant & Pepermans, 2003). With retention we want



to prevent that good employees switch to other organizations, that is why it is important to ensure that your employees remain interested. But not only the retention of your existing staff is essential, but also to attract and recruit new staff belongs to retention (Garber, 2007).

Dibble (in Rammant & Pepermans, 2003, p.47) states that attracting and recruiting new staff is a first step and gives the first impression of an organization. One should therefore take into account the fact that retention is not unambiguous and that many facets have an influence on the staff and thus also the retention. Retention starts before an employee is employed in an organization, namely with the job description, selection, job interview and ultimately the introduction in the organization. When an employee leaves the organization, it can be very useful for them to hold an exit interview. Wijchers (in Rammant & Pepermans, 2003, p.52) points out the importance of this conversation for management. On the basis of this conversation, a lot of information can be obtained, such as the reasons for departure, the working atmosphere, the cooperation with colleagues and supervisor, the expectations, the procedures and the content of the job. An organization can respond to this in order to improve itself each time.

According to Moreels (2007), retention is essential for three reasons. The first reason is because of the growing importance of intellectual capital. More and more organizations run on the knowledge and skills of their staff. Organizations need to become more innovative and deliver good quality (cf. knowledge economy). When an employee leaves the organization, the organization loses not only a member of staff, but also his or her knowledge. A second reason is because of the link between retention and customer satisfaction. There is a proven link that shows that employees who are satisfied with their job and organization are more likely to satisfy their customers. When customers and employees are satisfied, this has a positive impact on being loyal to the organization. A third reason is the cost of turnover. When an employee leaves the organization, this entails both direct and indirect costs. Direct costs are the costs that are spent on recruitment, training and education, Indirect costs include the effect on the amount of work for the other employees, the motivation of the other employees, In addition, this will also provide opportunity costs as the management must ensure that the vacancy is filled out.

Nowadays we are struggling with the consequences of the war for talent and the population ageing. In these times it is an extra challenge for organizations to keep their employees. As an organization you always have to be critical of your own way of working, the way of management, wage components in comparison with other



organizations, the atmosphere on the work floor, career opportunities, and so on. All these factors can ensure that employees choose to switch to another organization because the conditions are better there (Moreels, 2007).

4.2 Which factors determine/ influence the inflow or outflow in an organization?

There are many factors that determine whether or not an employee likes to work in an organization. Discussing them all will lead us too far, so I limit myself to the most common and the most significant factors.

4.2.1 Job commitment

The sincere interest in the organization, as mentioned in the concept of retention, is an important theme. We can link this to the term 'engaged performance'. This term means that an organization wants to stimulate employees their enthusiasm in order to increase the productivity and succes of the organization (Murlis & Schubert, 2001). This commitment to work is further associated with some concepts such as a combination of energy, involvement and competence of employees (De Prins, Brouwers, & Maloens, 2007), the availability of great resilience and perseverance, the dedication and absorption in your job (Schaufeli & Bakker, 2001). This commitment together with job satisfaction (see 3.2.4) is an important aspect that can influence wether or not to develop a burn-out (Scanlan, Meredith, & Poulsen, 2013).

De Prins, Brouwers & Maloens (2007) have investigated whether there is a link between commitment and retention. Furthermore, they have identified which aspects employees consider important for a job for which they would like to stay in the organization. This study was conducted on a population of 5262 employees, varied by gender, age, education and their job level. This showed that commitment and retention do go together. Those in the category without turnover intent, i.e. those who would like to continue working in the organization, show a higher percentage of engagement (63%) than those with turnover intent (49%). There is a big difference between the group of committed (engaged) employees and the non-engaged employees in terms of values. Engaged employees place greater importance on the intrinsic values of the job (quality of work, inspiration and values, and development opportunities). They find interesting and autonomous work conducive and an efficient, value-driven leader important. This group considers it important to have career oppurtunities and to receive feedback aimed at improving performance. Non-



committed employees, on the other hand, attach more importance to extrinsic values (work-life balance and a fair and competitive payment). If we compare the category of engaged <-> non-engaged with the category of persons with turnover intent <-> no turnover intent, we notice a comparison. The group with turnover intent attaches the greatest importance to pay and development opportunities. If an organization wants to keep its employees, it is positive to look at both the engagement factors and the retention factors. When we take these two categories together, we can conclude that this is considered the order of importance: (1) development opportunities, (2) quality of work, (3) inspiration and values, (4) work-life balance and (5) reward.

4.2.2 Remuneration

The wage component is a topic that is often discussed when it comes to staying or leaving an organization. Several studies have been conducted on this subject, which do not all form the same conclusion. A study by the University of Antwerp and Monster believe that only pay really convinces and is the basis for the binding of employees. The softer motivators also play a role, but to a lesser extent than the wage policy. Their research shows that 43% put pay or better financial conditions as a first motivator to leave an organization and that this is a first motivator to remain in the organization according to 49.3% (Nelen, 2008).

In contrast to the previous, a research by Saklani (in Surienty, Ramayah, Lo, & Tarmizi, 2014) show that the wage component is no longer the most important factor in whether or not to leave an organization. Employees find it increasingly important to have a good balance between their work and private life. They can have good wages and wage benefits, but when they cannot spend this (enough) in their private life because too much time goes to work, this will have little influence. The research mentioned above by De Prins, Brouwers, & Maloens (2007) shows that wages are not regarded as the most important factor in the context of work engagement. About wages or remuneration, it is further shown that employees find it more important to earn a wage that is fairly (68%) than wages in function of the labor market (61%). Finally, this study shows that the remuneration is most appreciated by men. Men, young people, employees with a lower profile and employees from the tertiary sector attach more importance to the wage component.

As an extra, organizations can invest in an additional element, namely the fringe benefits. Offering fringe benefits is a form of investing in the personal needs and possibilities of employees (Cools, 2007). An organization that is known to take more



account of the personal needs of its employees is more likely to retain their talents (Rammant & Pepermans, 2003). As a result, employees can get extra motivated, which will eventually increase productivity. In the context of the war for talent, this can be very interesting for organizations to attract employees in a different way. The provision of fringe benefits is also positive for both employees and the employer. On the one hand because the employee often doesn't have to social insurance on this wage section and on the other hand because it is financially more advantageous for the employer (Cools, 2007).

There are many types of fringe benefits, for the most part we can list these benefits in two broad categories: the core benefits and the new age benefits. Under core benefits, Rammant & Pepermans (2003) understand the most obvious benefits such as a supplementary pension, various insurance policies, meal voucher, company car, In addition, Otté en Pepermans (in Rammant & Pepermans, 2003, p.113) see the new age benefits, or also called the trendy benefits, that respond to the trends of society. There is a trend in this time where both woman and man are working and therefore there is more interest in the work-life balance. Examples of this type of benefits are organizations that offer an ironing or laundry service, give tax advice or let the dog out on payment of subscription fees from the employer, Baeten en Bogaert (in Rammant & Pepermans, 2003, p.115) have researched employees' wishes with regard to fringe benefits. This investigation showed that employees aren't very interested in the far-reaching new age benefits such as ironing or laundry, because they do not like to give this tasks to others. They want to be supported, but not hand over their private tasks. However, they showed some interest in offering services close to work such as supermarkets or pharmacists. The main interests, however, remained in the classic core benefits, mainly in terms of pension accumulation, company cars and insurances. An important remark made by Vereecken (2001) in the provision of extralegal benefits is that the separation between work and private life is best maintained. When organizations offer this kind of benefits, this separation will become smaller. This will cause stress and increase the chance of a burn-out. Another remark by Baeten and Bogaert (in Rammant & Pepermans, 2003, p.116) is the argument that this returns to paternalism whereby the employer provides various offers, but there is little flexibility. Employees consider these flexibility to be important. Research has even shown that employees value their wages more when they have flexibility and thus reduce staff turnover. A n organization can offer this flexibility in the form of a cafeteria plan (Barringer & Milkovich, 1998). This is a form of flexible remuneration in which the employee can compose part of their salary package on the basis of his or her individual needs. This is also advantageous for the employer as his costs remain the same. The benefits that an employee can choose from include offers on mobility (e.g. company car),



additional social security (e.g. pension savings), technical extras (e.g. smartphone), the new age benefits (see back), and so on (Elsen, 2017).

Important in offering benefits in function of remuneration is the communication to the employees. It is important that employees know what benefits their organization offers them and that they have sufficient information about them. The study by Baeten (in Rammant & Pepermans, 2003, p.117) shows that employees feel that too little is being communicated about this. The results also demonstrate this, 38% of the management does not appear to communicate about the benefits. Especially giving information about tax treatment remains a stumbling block.

4.2.3 Work-life balance

Work-life balance is an important theme when it comes to employee satisfaction and productivity. By work-life balance we mean the balance between the home situation on the one hand and the combination with work on the other. Lockword (2003) looks at work-life balance from different perspectives, because for each group of people this has a different meaning. For example, an employee looks at work-life balance as a balance between the obligations of work and the responsibilities at home. An employer will view this as a challenge to create a culture where there is a balance between employees work and home situation. It is important as an employer that you look at the employees as a "total person". An employee is not only an employee in your organization, but also a mum or dad, grandmother or grandfather, member of an association, When a manager takes this into account, this will ensure trust and loyalty (Moreels, 2007).

We can categorize a lot under work-life balance, because there are many opportunities for an organization that can be used to improve the work-life balance. Some examples are: a flexible work schedule, teleworking, working at home, childcare at work, and so on. To make a choice here, it is best to look at the employees in an organization. When an organization mainly consists of single women, childcare can be a good idea (Murlis & Schubert, 2001).

A flexible work schedule can greatly promote the work-life balance because it gives employees an opportunity to better combine their private lives with their work. Employees with a flexible work schedule can choose to deviate from the normal nine-to-five scheme, the regular five-day week or the ordinary 38-hour week. This gives them the opportunity to adjust their work schedule in function of, for example, their



family. That way they can stop in time to pick up the children, do the housework, ... (Moreels, 2007). This flexibility that they can determine in function of their own private life creates a general improvement of a work experience. Flexibility gives employees the feeling that they can exercise more control over their lives (Scandura & Lankau, 1998). Furthermore, a flexible work schedule would result in better organizational involvement and job satisfaction (Scandura & Lankau, 1998; Shockley & Allen, 2007)

Telework is a form of work where the employee performs his work outside the normal office. He can do this by means of internet and telecommunication. The most common form of teleworking is working at home (Rammant & Pepermans, 2003). Telework can, however, offer positive financial consequences for an organization. It is possible to save on various aspects and teleworking can also lead to greater employee productivity and loyalty. This in turn leads to greater satisfaction and a smaller turnover intention (Moreels, 2007). Another advantage of telecommuting could be that you attract a larger group of potential employees, namely single parents, parents with disabled children, ... in this way they can also work but combine their work with their home situation as well (Rammant & Pepermans, 2003). When employees work at home, this has, moreover, a positive impact on mobility. When employees work at home, this also has a positive impact on mobility. Today, all teleworkers would save around 9 million kilometers, or 7% of the total commuter (Poppelmonde, 2018). It also appears that a common factor of retention is the distance between home and work. If this is not good, this can be a reason for departure (Nelen, 2008). In other words, teleworking can turn out very positively, but also has some drawbacks. For example, it may be difficult for an employee to draw a line between work and home. It can also cause stress if the home situation does not fully accept this, or if an employer does not have sufficient confidence and performs control mechanisms (Baruch, 2000). It is therefore very important that teleworking is well-thought-out. It is therefore very important that teleworking is well thought out. Not every employee, function or organization can organize teleworking. In addition, managers must be open to this way of working. That is because their subordinates no longer work under their eyes. In the best-case scenario, the management thinks of a system of how people who do teleworking, are coached, monitored, evaluated and followed up. Furthermore, management must consider that they keep these people on the team so that they do not get isolated (Moreels, 2007). This, namely, is one of the risks associated with this, that once employees are out of sight, they're also out of the thought (Rammant & Pepermans, 2003).

Childcare at work can be an alternative for an organization to improve the work-life balance. To organize childcare within a company, there are four options. The first



option is to offer your own childcare that the organization sets up itself. The second option is to enter into a partnership with other companies and to set up a joint childcare facility. The third option is to include or reserve places in existing private or subsidized facilities. Finally, there is the possibility to provide mediation between employees who are looking for childcare and facilities that offer childcare. Each option has its advantages and disadvantages and must be agreed in function of the organization. Research at three different companies with around thirty respondents has shown that option one offers the most preference for both children who do not yet attend school and children in preschool or elementary school. Other possibilities that parents would like to receive, apart from childcare, are flexibility in the morning and evening hours, the easy allowance for vacation for family and a contribution for costs (Vanpée & Hedeboom, 2001).

The importance of work-life balance in terms of retention was demonstrated in various studies. According to May, Lau & Johnson (in Lei, Lawler, & Huang, 2007), an organization that offers a good balance between work and private life will have a greater chance of attracting and retaining good workers. Organizations that attach great importance to this would also benefit an organizational growth and profitability of their company. According to Marta, et al. (2013), a good work-life balance would lead to a high identification with the organization in which they are employed and therefore a lesser intention to leave the organization.

➤ **Work-life balance according to the European Commission**

The importance of work-life balance can also be found in policies and activities of the European Commission. They take lots of initiatives to improve the work-life balance for employees in this century.

One of the most recent initiatives from the European Commission is a directive of work and private life of employed parents and carers (care givers) facing challenges combining their work and private life. The Commission decided to take a broader approach in addressing women's underrepresentation in the labor market and to implement this. It includes new implementations towards the current EU law. It sets new or higher minimum standards to create more convergence between EU Member States, by preserving and extending existing rights.



- Introduction of paternity leave. Fathers/equivalent second parents will be able to take at least 10 working days of paternity leave around the time of birth of the child, compensated at least at the level of sick pay → in the current EU law there are no minimum standards for paternity leave.
- Strengthening of the existing right to 4 months of parental leave, by making 2 out of the 4 months non-transferable from a parent to another, and compensated at a level to be set by Member States. Parents will also have the right to request to take the leave in a flexible way (e.g. part-time or in a piecemeal way) → in the current EU law there are at least 4 months per parent, out of which 1 month is non-transferable between parents. And no minimum rules on allowance/payment.
- Introduction of carers' leave for workers providing personal care or support to a relative or person living in the same household. Working carers will be able to take 5 days per year → in the current EU law there are no minimum standards for carers at EU level (except "force majeure" allowing to take short time off for imperative and unexpected family reasons).
- Extension of the existing right to request flexible working arrangements (reduced working hours, flexible working hours and flexibility in place of work) to all working parents of children up to at least 8 years old, and all carer → in the current EU law there is the right to request reduced and flexible working hours upon return from parental leave, and the right to request part-time work for all workers.

This initiative will benefit individuals, companies and the wider society. Parents and carers will profit from a better work-life balance. Moreover, the foreseen increase in women's employment, their higher earnings and career progression will positively impact their and their families' economic prosperity, social inclusion and health. Companies will benefit from a wider talent pool and a more motivated and productive labor force, as well as from less absenteeism. The rise in women's employment will also contribute to addressing the challenge of demographic ageing and ensuring Member States' financial stability (European Commission, sd.).

4.2.4 Job satisfaction

Job satisfaction is a very important factor of retention of the intention to turnover. By job satisfaction we understand a global sense of satisfaction that someone has about his or her work (Scanlan, Meredith, & Poulsen, 2013). A cross-sectional study conducted on a national population of 1515 persons has shown that job satisfaction is the most significant predictor of the intention to turnover. They view job satisfaction under two indicators, namely demographic factors and factors in the work environment. These two indicators would exert an influence on job satisfaction.



By demographic factors, the researchers understand the following indicators: age, gender, education and employment. Work environment factors, on the other hand, consist of other indicators: conflicts at work, division of tasks, financial remuneration, relationships with employees, autonomy, participation, The research also shows that the working environment factors have a greater influence on the job satisfaction than the demographic factors. The most important working environment factors were job variation and financial reward. In correlation with the intention to progress, we see that the job satisfaction or the extent to which employees are satisfied with their job is most strongly influenced by having job variation, good relationships with employees and financial reward. Age also plays an important role here. It appears that as employees get older, their job satisfaction increases (Lambert, Hogan, & Barton, 2001).

Already through various studies, it appears that there is a strong link between work satisfaction and stress. This again can be combined with the turnover intention, as shown in the research of Kuo, Lin, & Li (2003). Here it was shown that stress has a negative effect on job satisfaction and turnover intention. In other words, job satisfaction reduces the effect of stress on the turnover intent.

4.2.5 Development perspectives (training and development)

Offering promotion opportunities appears to be an important factor why employees want to stay in an organization. Here one should not only think of opportunities for growth in terms of functions within the hierarchy, but also in personal growth possibilities. As an employer, it can be important to search with your employee for the possibility to grow his skills and competencies (Nelen, 2008).

4.2.6 Content of a job

According to Good, Sisler, & Gentry (1988), the extent to which a job description is clearly defined has consequences for employees. When there is no clear job description in an organization, this will give employees more stress, more frustration and fear of doing a good job.

We can divide the content of a job into three important parts as mentioned in the chapter on knowledge. Namely autonomy, the extent to which an employee has the ability to complete his tasks from start to finish and to receive direct and clear feedback. The first element, autonomy, has a positive influence on the motivation of



employees and will thus improve their performance (Foss, Minbaeva, Pederson, & Reinholt, 2009). Deci and Ryan (2000) conclude that a job in which you have autonomy, gives you more intrinsic motivation, leads to better performance and better engagement in your job. The second element, the extent to which an employee has the ability to complete his tasks from start to finish, mainly relates to the fact that an employee considers his duties to be valuable. He will deem his work more useful and therefore internalize it (Hackman & Oldham, 1976). The third element, feedback, is in a positive correlation with the motivation of an employee, his satisfaction and performance (Foss, Minbaeva, Pederson, & Reinholt, 2009).

4.2.7 Relationship with employer and colleagues

A very important factor is the relationship with the manager. A manager who shows respect and appreciation for his employees will have a positive influence on the well-being of the employee and consequently the retention. A good direction and clear communication are also important here. It is essential to pay attention to this relationship, because when there are tensions between the employee and the manager, there is a big chance that the employee will leave the organization. We can view this in reverse. Poorly performing managers have an influence on whether or not employees remain in an organization. There is a difficult cooperation and moreover, this type of person often attracts other bad managers, causing the 'good' people to become discouraged and lose interest. The best people will therefore take the step to another organization) (Moreels, 2007).

Colleagues also have a major influence on retention. If an employee has a good and close cooperation with a colleague and this person leaves the organization, there will be a great chance that this employee will leave as well. The chance to collaborate with other colleagues is an important factor for many people in the decision to leave or to stay in an organization (Moreels, 2007).

4.3 Instruments for retaining staff

As mentioned earlier by Dibble (in Rammant & Pepermans, 2003), retention starts with attracting and recruiting employees. It is therefore important that the HR-department draws up a clear picture of the job description, in particular what is expected of the job and what skills are needed. It is best to frame the function in relation to other functions in the organization so that the employee has a view on this. Furthermore, it can be positive to mention possible career growth opportunities. The next step is to recruit and select a new employee. It is important here that one has an eye for the fact that the candidate will form an opinion about the



organization, about the way of employment and about the way of testing. Once the candidate has been elected, the next step is taken, namely the introduction or the reception of the new employee. Here it is important as HR-department or as a manager to show appreciation because of the fact that the person has chosen for your organization. Further, you give the new employee sufficient information, provide the necessary office supplies, register the new employee for the benefits and such. Retention only ends when the employee leaves the organization and, in that case, it is best to have an exit interview.

Wijchers (in Rammant & Pepermans, 2003) sees some important notions that HR can consider to take to the next retention cycle. From the conversation certain aspects can emerge that require improvement. HR can play an important role in adjusting these aspects. However, if some things can not be improved, it may be advantageous to provide this information when selecting a new candidate. In this way, a possible mismatch is reduced.

In order to improve the work-life balance in an organization, it can help that the management set up individual programs that are intended for both the employee and his or her family (for example a family day). This will convey a feeling that the organizations cares about them and treat them with care (Surienty, Ramayah, Lo, & Tarmizi, 2014). Other ways in which an organization can promote the work-life balance is by offering facilities within the organization itself. In this way the organization tries to offer a balance between work and private life. For example, we think of childcare at work (Moreels, 2007). However, it should be taken into account that these implementations are not too far-reaching, as a result of which the boundary between work and private life becomes too small. When an organization provides a place to sleep in situations where it has become too late to return home, this can lead to a domination of the organization and we can question the freedom of choice of the employee (Moreels, 2007).

An organization must also respond to the remuneration as this is an important part of a job. As an employer, it is important to meet a basic package that matches the wishes and expectations of every employee. These expectations can be very changeable and therefore it is important for the employer to be flexible in this. For example, certain employees attach more importance to a few extra paid days off than to a salary increase. This flexible management of wages is closely related to the cafeteria plan, discussed in 3.2.2 remuneration. The other, secondary, factors of wages can be decisive, but must therefore be well developed (Moreels, 2007).



In addition, to ensure sufficient job satisfaction, management should focus more on improving working environment factors in their organization. In this way, they increase job satisfaction and reduce the intention to turnover (Lambert, Hogan, & Barton, 2001). It is very important that the personal goals of an employee are in accordance with the goals of the organization. Both parties must benefit from the solidarity (Garber P. R., 2008).

Finally, an organization must attach importance to the mutual relationships, both with the manager and with colleagues. Now that it has turned out that the relationship with your employees is significant, it can only be promoted if the management responds to this. They can do this by focusing on the integration of employees to create a sense of cohesion between colleagues and departments (Kalleberg & Lincoln, 1990; Mueller, Boyer, Price, & Iverson, 1994).

Besides this, the management can also use some legal strategies to retain employees. For example, a bonus system can be used whereby an employee receives a bonus on a certain date if he is employed for a specific period of time. When the employee leaves earlier, he will not get anything. One can use the option on the granting of shares. Employees can exercise these shares gradually and only over a certain period and a certain percentage. Another option with shares is to offer them immediately free of charge, but the employees are only allowed to sell them after a certain period. An employer can also use a loan to employees that can be repaid over a certain period of time. Only if the employee leaves the organization, he or she will have to repay everything in one go. Other factors that can be used are valid training- or non-compete clauses. This will make it more difficult for the employee to switch organization (Moreels, 2007).

Some other tips that the organization can use are the following. Give at a certain time a reorientation for all employees, even for those who have been in the organization for a long time. An organization is constantly changing and it is important that everyone understands the current state of affairs (Garber P. R., 2008). In addition, don't let HR be the only one who oversees retention, but involve the entire organization. It is also important to make this a priority and to discuss this on a regular basis with the management (Garber P. R., 2008).



4.4 Conclusion

We describe retention as retaining staff employed in an organization with the intention that they do not switch to other organizations. An organization influences retention in many ways and in every step they take (attracting new employees, recruiting, introduction in the organization, ...). Turnover can have some positive aspects for an organization (depart of incompetent employees), but in most cases it is important for an organization to retain their people and to do retention management. This for several reasons: growing importance of intellectual capital, the link with customer satisfaction and the cost of turnover. With the war for talent and ageing, it is even more important to keep the employees in the organization.

There are many factors that determine whether or not an employee likes to work in an organization. The job commitment or the interest in the organization/job is a first factor. The remuneration or the financial conditions (wages + benefits) are a second factor. A third factor that can influence retention management, is the work-life balance. In my opinion, this is a very important factor to pay attention to. When an organization finds a balance between work and the private life of their employees, their employees will be more satisfied and will be more likely to stay in the organization. This because lots of employees nowadays combine their work with their private life, this means that nowadays lots of families have a job and children and want to have option on how to combine these two. Another factor that can determine retention is the job satisfaction. Although this is a factor that, for an organization, is harder to have an influence on. Development perspectives, such as training and development, is a fifth factor. The content of a job and the relationship with employer and colleagues are some other factors that can determine the retention. I think that the relationship with employer and colleagues is another very important factor to pay attention to, even if it doesn't seem that important to some. But when an employee doesn't have a good relationship with their colleagues or with their employer, he or she will be more inclined to work against others or against the organization. For all this factors, HR can play a big role in the implementation or the amelioration in function of retention.



5 Methodology

5.1 The context of the research

The goal of the evaluation on this project is, one, to look at what explicit and implicit knowledge the participants acquire from this project. And two, to see if and how they have transferred this acquired knowledge after the project so that the knowledge is retained in the organization. Two major questions need to be asked:

- What explicit and implicit knowledge have they learned from the project?
- Did they shared/transferred this knowledge to others after the training? And if yes, how did they transferred it?

But as a side note, is important to mention that we cannot measure exactly what explicit, but mostly what implicit knowledge, they have learning from this project, but only what they THINK they have learned from it. This for the reason that it is impossible for me as a researcher (because I don't have a before-after approach) to measure their approved level of skills. I can only rely on what the participants will say they have learned and thus what they THINK they have learned according to themselves.

These two questions can be linked to the four-level model of Kirkpatrick as seen before. My research question ("What explicit and implicit knowledge do participants of the VETmh TuTo+ project acquire and is this knowledge shared with others?") wants to measure the acquired explicit and implicit knowledge from the European project and how to keep these knowledges in the organization. In other words, we want to measure the acquired knowledge, the improved skills or the attitudes changed due to the training (= the second level 'learning'). And we also want to know if the participants changed their on-the-job behavior because of the training. If they transferred their acquired knowledge and skills to the workplace (= the third level 'behavior'). This framework of Kirkpatrick's model is therefore very utile to use in my research method.



5.2 The chosen research method

5.2.1 A quantitative or a qualitative research method?

The first question we have to ask ourselves, is if we want a quantitative or a qualitative research method to investigate our research question.

Quantitative methods are used when you want answers on questions that can be expressed in terms of quantity. It is used when there is a large group of respondents. It is objective, unchangeable and gauges facts. Quantitative methods are more used for research questions that start with 'how many...?'. The data is taken from measurements and the results are displayed in graphics, tables and percentages. It provides support when you need to draw general conclusions from your research and helps to see the big picture (Sociale Hogeschool Heverlee, 2018; SurveyMonkey, sd.).

Qualitative methods, on the other hand, are used when you want answers on questions that gauge motives, feelings, opinions and experiences, to identify causes. It is more used for 'why' and 'what' questions (more open questions) and helps you gather more detailed information on a topic. The data is taken from different kinds of methods such as interviews, observations and so on. It is less structured than quantitative methods. The analysis is done by transcription and coding. The results are displayed in descriptive words (Sociale Hogeschool Heverlee, 2018; SurveyMonkey, sd.).

As we have a research question that doesn't expect answers that can be expressed in terms of quantity, but more in terms of feelings and experience, it is more plausible to choose a **qualitative** method. The research question requires more detailed and personal information. We don't want the results to be displayed in graphics, but in descriptive words. This for the reason that the research question can vary per person and is therefore more subjective. Also, there aren't that many participants to display the results in graphics.



5.2.2 Which research method is the most adaptive?

In the very first place, we have used a **literature study** to explore our subject. That way we can sample as much information as needed and gain a broad view on the subject. A literature study is a great method to gain large information and to compare different sources to determine generalizability and consistency (Sociale Hogeschool Heverlee, 2018).

Then the intention was to conduct a survey but as there weren't many participants, this doesn't seem the right method. When looking at the literature and the given time and circumstances, **observation** of the participants seems the best method. This for following reasons:

- When looking at the given literature about a post-training evaluation in association with the four-level model of Kirkpatrick, we have seen that level two (learning) and level three (behavior) of Kirkpatrick's model correspond with the aim of my research question.
 - In association with level two, we saw that the best method to evaluate a training is to use a before-and-after approach. Considering the time and circumstances (not the possibility to have prepared enough at advance), it is impossible to have a before-approach. This has the consequence that we aren't able to use a control group because this would have to be prepared at advance. A test/evaluation before and after the training isn't possible as well. We could choose to evaluate the participants after the training only, but this doesn't seem the best possible method as seen in the theory. Kirkpatrick gives the tip to statistically display the results, but as we have not that many participants (17 in total), this doesn't seem the right method either.
 - In association with level three, we saw that a training can be evaluated by a focus group or an interview. But we saw that the best way to measure this level is by an observation 'on-the-job'. Here we observe the employee's real on-the-job behavior to see if he correctly transferred the acquired knowledge, skills and abilities to his workplace.
- When studying different kinds of literature about observation, we recognize that the observation method is the best way to observe human behavior or interaction between people. Some examples given are related to evaluate people's knowledge, skills and behaviors. Evaluating human behavior on the basis of observation is utile because there is often a gap between what people



say they do and what they actually do. The observed behavior is often a more dependable indicator than what is self-reported (Krueger, 2017; Department of Health and Human Sciences, 2018; Kaynat, 2017).

The observation method can be divided into two parts: structured and unstructured observation.

1. Structured observations are used when we want to standardize information and do a numerical summary of how many people are doing certain things. For example, to observe on the basis of a checklist to indicate if it does or does not occur and/or a rating scale to indicate how well some elements are carried out. It is "looking for" specific items. They provide quantitative data from frequency counts, rankings and ratings (Taylor-Powell & Steele, 1996). When using a structured observation, it helps the observer to remember what to watch for and it creates a verifiable record. A checklist helps focus the evaluation, keeps the observation consistent, and allows for comparison (Krueger, 2017).
2. Unstructured observation, on the other hand, do not confine yourself to looking for preset items. It seeks to be inclusive and to see things within the participant's context. It is "looking at" the entire context. They provide qualitative data (Taylor-Powell & Steele, 1996). This will provide the observer to see other things that might not be seen when only looking at your checklist. A checklist will focus your attention in a certain direction whereby you can miss other critical events (Krueger, 2017).

We will be using a combination of the structured and unstructured method. This for the reason that both ways have some advantages and disadvantages. That way we want to make sure that we can get the most out of the observation. We will use the table of 12 soft skills with the corresponding level of competences as sort of a checklist. This is the structured way because we are using a rating scale to indicate how well the person manages the soft skills. But on the other hand, we want to be open-minded and look at every aspect and provide qualitative data. This is the unstructured way. This can give a more open view on what knowledge and skills the person possesses. We have chosen to use a combination because we want to be open-minded, but we also want some kind of grip on how to evaluate soft skills. This for the reason that soft skills are the hardest skills to examine and to measure as seen before.



Observation can be used as stand-alone data collection tool. Nevertheless, observation is mostly used in combination with another research method. For example, it can be used after a focus group, interview or survey where the goal is to identify a set of behaviors that are of interest. The observation then allows to examine how common the behaviors are, or to look for patterns in the circumstances or triggers that give rise to them. It can also be used on the other way around. An evaluation can start with some exploratory observations and then follow these up with interviews where participants are asked to comment on their experiences in the situation. This combination can build a more complete assessment of the effectiveness (Observation: a guide for use in evaluation, 2017).

Considering this theory, it can be utile to not only use an observation as research method, but to use this in combination with another research method, namely in combination with an **interview**. As seen right above, an evaluation can start with some exploratory observations and then followed up with interviews where participants are asked to comment on their experiences in the situation. I think this can be enriching in our research.

An interview seems the best method to use in combination with an observation for several reasons:

- As seen right above, an evaluation can start with some exploratory observations and then followed up with interviews where participants are asked to comment on their experiences in the situation.
- When looking at the given literature about a post-training evaluation in association with the four-level model of Kirkpatrick, we have seen that level two (learning) and level three (behavior) of Kirkpatrick's model correspond with the aim of my research question. An observation method is the best way to measure level three (behavior) or in other words, to measure if they transferred their acquired knowledge and skills to the workplace. But an observation isn't the best possible way to examine our level two (learning), or in other words, to measure the acquired knowledge, skills or attitudes that changed due to the training. This level can best be measured by a test/exam where they demonstrate their skills and competences. But as this isn't possible, we can ask some questions that can relate to the questions that would be asked in a test. That way we can deepen a few aspects and question them deeper to have a clearer view.



Interview styles can vary from structured to unstructured forms:

- Structured interviews are used when it is important to collect the same information from every respondent. It is a standardized form of asking question where the order of questions is determined ahead of time. That way, everyone receives the same question which makes it easy to aggregate the replies.
- Semi-structured interviews don't always have an order of questions which is determined ahead of time but allow to ask questions naturally during the interviews. It uses an open framework that allows focus yet conversational communication.
- Unstructured interviews are the most flexible way of interviewing. The interviewer lets the respondent lead the conversation and only asks additional open-ended questions to gain more information. The interview plan doesn't consist of determined questions beforehand, but only out of the purpose of the interview and a list of topics to be explored (Ellsberg & Heise, 2005).

➤ **The real conducted method:**

After talking to some different people about the research, we thought it would be better to just focus on conducting an **interview**. This because otherwise the research would be subjective as I didn't get the chance to know the participant beforehand. I wouldn't be the right person to conduct an observation because I didn't get a 'before-and-after approach' which is a utile way when conducting an observation. The elements I would observe would also be too difficult to see. Measuring soft skills isn't easy and when seeking them in an observation may lead to mistakes. This for the reason that we you see a soft skill appearing, it might just be the personality of the person and not due to the training. Besides this, it is in an early stage of the training to already see large changes. That's why we have chosen to conduct an interview.

We will be using the structured way of interviewing. We will ask all the participants the same questions in the same order so that we can collect the same information from all of them. This will make it easier to aggregate and analyze the results.



5.2.3 Some tips when conducting an interview

- When conducting an interview, it is better to use open ended question in order to receive qualitative answers.
- Begin with easy to answer questions and move towards one that are more difficult or controversial.
- Don't always stick to your list of questions but make "on the spot" revisions to your interview protocol.
- Use some type of recording device and only take brief notes so you can maintain eye contact with your interviewee (Jacob & Furgerson, 2012; Pat, 2018).
- Have genuine care, concern, and interest for the person you are interviewing (Jacob & Furgerson, 2012).
- Tell the interviewee what they can expect after the interview (Jacob & Furgerson, 2012; Rampton, 2015).
- Listen for non-verbal language (Rampton, 2015).

5.3 Target group

The target group of this evaluation will be the participants of the TuTo+ project. In total, there were 17 employees who have followed the project for 3 days. 11 participants are from Belgium and employed in CNP Saint-Martin. In order to examine our research and to conduct our research, it is only possible to take the Belgian participants in our research.

5.3.1 The group of respondents approached

From these 11 Belgian participants, we choose the selective method to determine our sample. This for the reason that some participants' function in the organization makes it hard to interview. Participants who only do nightshifts or are a driver on the road, are hard to interview because they are not often in the organization at the same time I am. Therefore, we will not take them into the evaluation. One other participant has chosen to leave the project, which makes us unable to conclude him in the sample. Therefore, 8 participants were remained.



Here follows the table of the Belgian participants who we have sent an invitation by email to participate. In total we have 8 participants who can participate to the research:

Name	Organization	Country
Respondent 1	CNP Saint-Martin	Belgium
Respondent 2	CNP Saint-Martin	Belgium
Respondent 3	CNP Saint-Martin	Belgium
Respondent 4	CNP Saint-Martin	Belgium
Respondent 5	CNP Saint-Martin	Belgium
Respondent 6	CNP Saint-Martin	Belgium
Respondent 7	CNP Saint-Martin	Belgium
Respondent 8	CNP Saint-Martin	Belgium

We use aliases in order to increase the anonymity. The order of the participants is randomly placed, i.e. they are not alphabetical or in the order as on the participants lists.

5.3.2 The exact sample

From these 8 participants who I have sent an invitation, 6 of them have agreed to participate. These are the following:

Name	Organization	Country
Respondent 1	CNP Saint-Martin	Belgium
Respondent 2	CNP Saint-Martin	Belgium
Respondent 3	CNP Saint-Martin	Belgium
Respondent 4	CNP Saint-Martin	Belgium
Respondent 5	CNP Saint-Martin	Belgium
Respondent 6	CNP Saint-Martin	Belgium

So, in total we have 6 of the 8 participants who have agreed which gives a response rate of 75%. However, one of them fell sick for a long period, leaving us with 5 respondents.



5.4 The concrete plan

I have chosen to conduct an interview after training session 1 of TuTo+ has finished. The investigation will be held at the workplace of the participation, in their office. In this way, we can also get a view on how they have or haven't implemented their acquired knowledge into their daily work life. It gives a view on the process of the transfer.



1. At first, I will look at my sample and to those who are able to participate to my research.
2. Before conducting my research, it is important to be prepared. I will prepare:
 - a. The interview questions.
 - b. A framework made out of the list of 12 soft skills.
 - c. The cards of 12 soft skills that will be given to the person. These cards include a brief explanation of the soft skill.
 - d. Three copies of the document 'informed consent' (see annex 2)
3. A certain time after the first training sessions have ended, I will start my research. The start will be in April 2019.
4. At the beginning of the interview, I will explain the research goals to the participant. I will explain who I am and what I investigate in great terms. I will also explain how I will analyses the results and what will happen with the results.
5. I will let them sign the informed consent document.
6. Then the real interview can start: I will ask my questions (see annex 3) and I will take notes while they are responding.
7. When arriving to the questions of the soft skills, I will lay down my cards of the 12 soft skills. I will explain that these are 12 common soft skills and that they can choose some cards (they can choose how many) that they think they



have learned during to the training. I will write down which card the participant takes first and which next. This order may also give an indication of importance.

8. At the end of the interview, I take some time to ask how the participant have felt during my interview and to let him give his or her opinion. This will give me the opportunity to improve my research and to grow myself as a researcher. I will also take some time to ask the participant if they would like to be kept informed about my research (the results, the analysis, ...) and if yes, how.
9. When the interview has ended, I will analyze the results: I will first to seek for consistency between the participants and cluster some things together. Then I will look individual by looking which elements stand out per person and which elements are, for example, missing.

5.5 Data analysis

During my interview, I will take notes on paper. After the interviews are done, I will digitally type out my collected results in English at my personal usb-stick. This way, the results only stay with me. I will not type out everything in detail but just the important conclusions of what they have said. Then I will start the analysis.

I will process my collected data by first looking for patterns, relationships and generalizations between the interviewed participants. I search for similar elements between the different participants and for striking elements that stand out or not. This way I can cluster some things together. I will also look broader and discuss the less common elements, the elements that have not yet been discussed. The next step is looking at my data individual. I will look elements that stand out and are typical for that person or add some personal reflections. Finally, I try to link everything together and make a resume that answers my research question.

I create reliability by firstly (when asking to participate) informing that everything will be analyzed anonymously. During the interview, I will communicate this again and have them also sign a form of informed consent guaranteeing anonymity and confidentiality.



5.6 Results

For displaying my results, we will not use names but respondent 1, 2, ... in order to increase the anonymity. The results are the raw data of all the answers together.

Explicit knowledge:

What explicit knowledge do the participants of the TuTo+ have learned during the 3 days?

1. The difference between a tutor and an accompanist / the role of the tutor:
 - a. RESPONDENT 3: about the fact that a tutor "learns to lean" and not just shows his trainee how to do some things but by giving them some sort of guideline on how he can do it → the pedagogical dimension + the framework of the accompaniment
 - b. RESPONDENT 1: The role of the tutor + the difference between a tutor and an accompanist: "on n'est pas ici pour les conseiller", we are not here to show them how it is done, but to show them the right way! "on l'accompagne, on fait pas le travail à sa place"
 - c. RESPONDENT 2: The difference between a tutor and an accompanist + the role of a tutor: a tutor needs to have experience for several years, need to be motivated, needs to have a sense of responsibility, it is more pedagogical.
 - d. RESPONDENT 4: but found it hard to see the difference.
2. It was a large group of people with different functions, a multidisciplinary group. This was already rewarding:
 - a. RESPONDENT 5: Hearing different opinions about people from different country's
 - b. RESPONDENT 1: To create a network, to broaden contacts, to share our knowledge. // But this also raises questions about the fact of a driver or a secretary will ever have to accompany a trainee.
 - c. RESPONDENT 4: To create a network, to broaden contacts, to share our knowledge
3. The theory about methodology: APA and sources:
 - a. RESPONDENT 3
 - b. RESPONDENT 1
 - c. RESPONDENT 4
4. The theory about Kolb:



- a. RESPONDENT 1
5. Some tools like the portfolio:
 - a. RESPONDENT 3
 - b. RESPONDENT 4
6. The didactically way of teaching of Marie-Clotilde: she doesn't only give theory but also some exercises, some things in groups and subgroups. The theory was put into practice:
 - a. RESPONDENT 5
7. How to use PowerPoint:
 - a. RESPONDENT 2

What explicit knowledge is useful in his/her function or in the organization?

1. The difference between a tutor and an accompanist → About "learn to learn" for trainees:
 - a. RESPONDENT 3: when X used to train trainees, X was acting more like a 'boss' than a tutor. Now X will be acting like a tutor where X learns new things to the trainee instead of just saying them ("learn to learn").
 - b. RESPONDENT 1
 - c. RESPONDENT 5: a little bit, but not really learned something.
2. The idea of the network: utile for conferences, to share our knowledge with each other is the most important thing
 - a. RESPONDENT 1: That we can say "I know somebody who ..."
3. A collective intelligence tool: it consist about a tool where you have to write 5 words on post-its and stick them on a board, then others have to look at it and give their opinion about it, ask question about it etc.. That way a lot of knowledge and experience can be transferred with each other. This tool can be used during meetings and/or reunions, for the partners.
 - a. RESPONDENT 2
4. Communication tools and tips: learned to communicate better what is utile to use in X position (for X team)
 - a. RESPONDENT 4

Did the training made sure (s)he improved in a specific item that is important in his/her function?



- Yes =
 - RESPONDENT 1: to search for sources, now X knows where to look
 - RESPONDENT 4: to know how to communicate better to X team: now X tries to re-formulate or re-ask the other person is saying to see if they understand the same things about the topic and to avoid mistakes.
- No =
 - RESPONDENT 3: not sure if it will happen
 - RESPONDENT 5: "J'ai plus à donner de recevoir. Le but pourquoi je me suis inscrit, c'est pour donner"
 - RESPONDENT 2

Did the training show the participant a new way of using something that (s)he did differently before?

- Yes =
 - RESPONDENT 4: X used to accompany her other colleagues by saying what they had to do and how to do it. When there were problems, X was the one telling what and how to do. Now X acts more like a tutor, X gives advice but doesn't give orders anymore.
- No =
 - RESPONDENT 3: not sure if it will happen
 - RESPONDENT 5
 - RESPONDENT 1
 - RESPONDENT 2

Implicit knowledge:

Have you learned something that wasn't an objective of the training in the first place? = the implicit knowledge acquired from the training:

1. Learned to collaborate with people he is not used to collaborate with (like a chauffeur, a receptionist, ...), with a group multidisciplinary
 - a. RESPONDENT 3
 - b. (RESPONDENT 4: *komt op hetzelfde neer*)
2. Learned to write down the qualities about yourself. In the beginning of the training the participants had to write down qualities about themselves and this was a hard exercise for some
 - a. RESPONDENT 5
 - b.



3. Learned to share yourself with others, to share knowledge with each other.
 - a. RESPONDENT 5

4. Got to know the other employees better in an informal way
 - a. RESPONDENT 3: "on se connait sans connaitre": they known each other without really knowing each other

5. Learned to work in a team where everyone is equal, there is no hierarchy. Learned not to be authoritarian towards the other people
 - a. RESPONDENT 4

6. Learned how to use PowerPoint
 - a. RESPONDENT 2

When using the 12 cards of soft skills, which soft skills did they learned due to the training?

→ **How does it come that you have learned this**

→ **Example to show that you control this soft skill**

1. Service skills:
 - a. RESPONDENT 3 (1st choice):
 - i. Why? Because he was a little frustrated that there were participants who don't really have to train trainees → to adapt to others
+ The training showed really well how the theory had to be put into practice
 - ii. Example: /

2. Adaptability and flexibility:
 - a. RESPONDENT 3 (2nd choice):
 - i. Why? Because he was a little frustrated that there were participants who don't really have to train trainees → to adapt to others
+ The training showed really well how the theory had to be put into practice
 - ii. Example: /
 - b. RESPONDENT 5 (2nd choice):
 - i. Why? Because you have to adapt to others / new ways of learnings / situations.
 - ii. Example: can't give examples because 3 days is too short



- c. RESPONDENT 2 (3rd choice):
 - i. Why? Also because you have to work with people you're not used to work with (a group multidisciplinary). There was a person that has said something completely different than the right thing – she has said something about it.
 - ii. Example: /
 - d. RESPONDENT 4 (3rd choice):
 - i. Why? Because this is a whole new experience where X had to come out of X context / comfort. X learned to deal better with different things that are coming towards her. X adapts faster + working together with different sort of people requires flexibility.
 - ii. Example: There was a change in work where normally X wouldn't like to deal with it, but now X learned to adapt more flexible and does it anyway.
3. Motivation:
- a. RESPONDENT 5 (1st choice):
 - i. Why? When signing up, you need motivation as a base
 - ii. Example: /
 - b. RESPONDENT 1 (2nd choice):
 - i. Why? When signing up, you need motivation as a base
 - ii. Example: Already started working on the tasks given (portfolio).
 - c. RESPONDENT 2 (4th choice):
 - i. Why? Because you need motivation and also because this project seemed very nice. Motivated to learn new things/tools.
 - ii. Example: /
4. Creativity and innovation --- (told ... times):
- a. RESPONDENT 5 (3rd choice):
 - i. Why? You have to come out of your comfort zone
 - ii. Example: /
5. Critical and structured thinking:
- a. RESPONDENT 5 (5th choice):
 - i. Why? We can give critics to each other in the group but always in a structured way
 - ii. Example: /
 - b. RESPONDENT 1 (3rd choice):
 - i. Why? This refers to the role of a tutor and how to accompany your intern, "vous êtes pas la pour le former, mais pour les accompagner" → you don't have to tell the intern how to do



something or correct him but assist and help them → =
communication?

ii. Example: /

6. Teamwork:

a. RESPONDENT 5 (6th choice):

i. Why? Because you have to work in groups

ii. Example: /

b. RESPONDENT 2 (1st choice):

i. Why? Because you have to work with people you're not used to work with (a group multidisciplinary)

ii. Example: /

c. RESPONDENT 4 (2nd choice):

i. Why? Because you have to respect the others and because they are all working towards the same goal, regardless what function they have. Learned this by doing exercises with very different people (ex: an exercise where they had to create something and they had to work together with different opinions). This is an exchange at the same level of hierarchy, no one stands above (in hierarchy) anyone else. X learned not to be authoritarian.

ii. Example: /

7. Communication:

a. RESPONDENT 1 (1st choice):

i. Why? The insight that a tutor is not authoritarian to his intern, he works 'together' with his intern → that requires a different sort of communication, you don't have to say; "do this", but you have to accompany the intern

→ *Same as critical and structured thinking?*

ii. Example: Normally you receive interns in your office, but after this project and the realization that a tutor doesn't have the authoritarian to his intern, X learned that it is better to receive your interns (or me) in a neutral environment. X has tested this on me.

b. RESPONDENT 4 (1st choice):

i. Why? Because of the different group (multidisciplinary), because of the differences between each and every one. X didn't understand why everything was being displayed in 3 forms (text, ppt and a folder), X has come to insight that this has been done because there are people who learn better with texts and other better with photos.

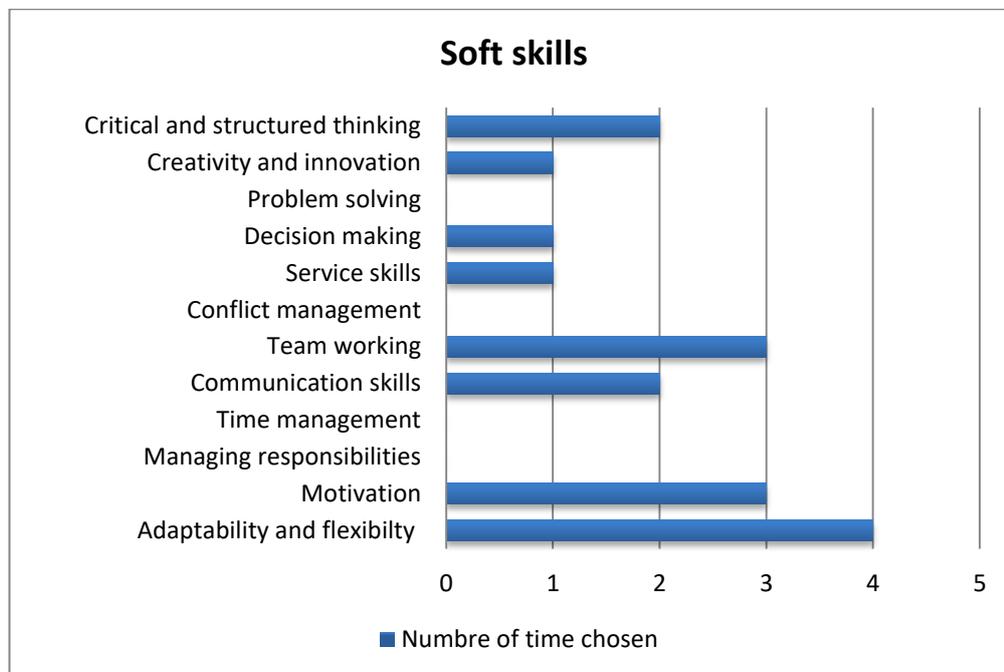


- ii. Example: Now X tries to re-formulate everything + tells everything twice to her colleagues (by saying it and also by writing it down) in order to communicate better

8. Decision making:

a. RESPONDENT 2 (2nd choice):

- i. Why? In the training, it was important to make decision or to put yourself in a position where you have to make decisions (“what would you do if...”).
- ii. Example: Takes more decisions on her own, normally there is always the same person who makes the decisions but now she takes them as well.



Transferability:

Did they transfer their acquired knowledge with others?

- Yes =
 - RESPONDENT 3: every time we have a training, we have a reunion multidisciplinary (with all the members of the team: nurse, psychologist, social worker, psychological assistant, secretary, psychological doctor)
 - RESPONDENT 5: with colleagues in an informal way. But this wasn't really about the knowledge acquired but more about practical



information – the colleagues were just curious about what the training was about, ... With the colleagues of the training they did speak about the knowledge

- RESPONDENT 1: With colleagues, friends, and children.
- RESPONDENT 2: With colleagues.
- RESPONDENT 4: With family.
- No =

Did they learn something (or gave tips) to someone else where the knowledge came from the training?

- Yes = ...% or persons
 - RESPONDENT 3: another colleague which was training a student asked him for help and he told his colleague that she don't have to give the answer right away to her student but to show the student the way he has to follow in order to find the answer ("learn to learn")
- No = ...% or persons
 - RESPONDENT 5
 - RESPONDENT 1
 - RESPONDENT 2
 - RESPONDENT 4

6 Deontology and ethics

My research doesn't have any impact on the wellbeing of my sample. I will guarantee anonymity and confidentiality by letting the participants sign a form of informed consent guaranteeing anonymity and confidentiality.

I will collect all my data (without names, just the analysis of the results) on the common driver here in the organization. This way it is accessible and easily available for everyone. The participants will be aware of this. Before starting my research, I will give a brief explanation on what will happen next with the results.

7 Limitations of the research

The biggest limitations to my research will be the language barrier. Since French isn't my native language, and the research will be held in French, I run the risk to not understand everything the participants are saying or to misinterpret some things.



Another limitation to the research will be that the evaluation of the TuTo+ project will be examined even though the sessions aren't completely finished yet. This will lead to incompleteness. Also, the fact that I only have the opportunity to examine the Belgian participants, will lead to incompleteness. The participants of TuTo+ consist of more than just the Belgian participants (France, Greece, Spain, Romania, ...) when counting all the participants together of the sessions in Belgium and Romania. As we only can examine the Belgian participants, there will be only few people who can participate to my research. This will have consequences for the generalizability.

As mentioned before, we cannot measure exactly what explicit, but mostly what implicit, knowledge the participants have acquired from the TuTo+ project. In order to do is, it is required to have seen a 'before approach' of the participants so that we can compare their knowledge before and after the project. This gives a much better view on the approved level of their skills. I can only rely on what the participants will say they have learned and thus what they THINK they have learned according to themselves.



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9 Annex

9.1 Annex 1: The different types of methods

Here follows a list of several methods that are often used in a research. Besides these, there are more possible methods to use, but these are the most common one. This section is divided into qualitative and quantities methods.

Quantitative methods:

Survey		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • A large-scale survey from the population • Large group of respondents • Used when you want to make general statements about a large group of people (about opinions, attitudes, knowledge, ...) 	<ul style="list-style-type: none"> • Large group of respondents → large amount of data • Broad information • Low cost • Fast • Easy analysis 	<ul style="list-style-type: none"> • Little control on non-response • Response bias: respondents answer what they think a good answer is • Limited number of questions • No information about the 'why'

Experience sampling		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Studying experiences (subjective) and behavior (objective) in a specific context • The feelings, thoughts, actions, context and/or activities of the participants are measured multiple times while living their daily live • Example: getting a message on your smartphone several times a day with a one or more questions 	<ul style="list-style-type: none"> • Collect data about life "as it is happening" + view on the context • Realistic • A view on intra-personal changes and processes • High response rate (short survey) 	<ul style="list-style-type: none"> • Hard analysis • Takes a lot of time and patients for the participants • Limited number of questions • Difficult to make statements about causality • No information about other contexts, only this one specific



Experiment		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Questioning • You manipulate 1 element (and keep the rest equal), to see the effect on the other elements • 2 groups: experimental group and control group • "between subjects" and "within subjects" • Used when you want to describe and explain causal relations/ causal connections (effects) 	<ul style="list-style-type: none"> • Fast • Easy analysis • Quick view on the results • A view on causality • Objective 	<ul style="list-style-type: none"> • Limited input form researcher • Limited number of questions • Other elements that may have an influence (error), are not controlled

A/B-test		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Optimization technique • Comparing 2 variables • Which version is most suitable for the intended goal? • By randomly assigning different version to different test subjects • Opens up to conversation • Used during the "prototype"-phase in design thinking cycle: at launch and monitoring of a design, goal = optimization • Or when there is no clear image of which option is better now 	<ul style="list-style-type: none"> • No costs • Immediately and clear evidence • Honest feedback • Testing new ideas • Optimize step by step • Easy analysis • More participation from customers / employees 	<ul style="list-style-type: none"> • Optimization still has to happen afterwards • Can lead to constant testing • Little insight into why a version is chosen or why not • Limited number of variants



Desk research & secondary analyses

What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> Data obtained by secondary sources: not in a direct way from respondents – collecting data from sources that are already available inside or outside the company (for instance from literature) Used in a first step of a diagnose (and then choosing a questionnaire / interview / ...) 	<ul style="list-style-type: none"> Objective No answer-bias Easy analysis Large amount of data (+ often spread over the years, so you have the possibility to see the evolution) Little time Low costs 	<ul style="list-style-type: none"> No influence on the division, coding and questionnaires Hard to codify and to interpret Not always all information available that you need for your research Situation may be changed since original investigation

Monitoring

What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> Due to the collection of information, developments in a particular field are followed (for example, monitoring a project or customer service) Insights on questions: “are you on the right track?”, “do your activities contribute to your goal?”, what goes well and what can be done better?” With this research, you know which next steps to take Longitudinal Used for follow-up of a certain project or when you want to measure if your objectives are achieved 	<ul style="list-style-type: none"> Little measurement errors (because of the repetition) Trustworthy Fast and easy High objectivity Possibility to compare your results with previous years (progress) 	<ul style="list-style-type: none"> Hard analysis Can lead to constant testing



Web analysis & site search analytics		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • For understanding and optimizing web usage • Research in what extent the content of a website meets the needs of users • Used when you want to examine the quality of your website 	<ul style="list-style-type: none"> • Little time • Low costs • Higher customer satisfaction 	<ul style="list-style-type: none"> • Hard analysis • Hard to interpret

Qualitatively methods:

Literature study & meta-analysis		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Literature study = when you want to find a lot of information about a certain subject from previous publications • Digital or library • Meta-analysis = the results of earlier studies are taken together to make a more precise statement about a certain phenomenon or theory • Steps: (a) problem definition, (b) determining search strategy, (c) collecting literature, (d) valuing/evaluating sources, (e) coding and analyzing, and (f) synthesis • To use before a research 	<ul style="list-style-type: none"> • Low costs • Reliable sources • Large information • Different sources can be compared to determine generalizability and consistency • The reasons for divergence and inconsistency in results from different studies can be identified and new hypotheses can be formulated 	<ul style="list-style-type: none"> • Time intensive • Not objective • Errors are copied unknowingly • Definitions and concepts are not unambiguously used and interpreted • When do you know you have found the exhaustive collection of information?



Depth interview		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Direct contact with respondents (conversation) • To get insight on personal experiences, opinions, attitudes and views • Structured <> not-structured • Researcher has flexibility to delve deeper into some aspects • Used when the researcher wants deeper understanding / insight of motivations, background, use, ... of people 	<ul style="list-style-type: none"> • Profundity – rich information • Input and control of the researcher (adaptive) • Possibility to ask more questions and go deeper into the conversation • Extra insights based on body language and expression (lots of information!) • Researcher can build an empathic relationship with respondent (this increases the quality of the information) 	<ul style="list-style-type: none"> • Representative? • Time intensive (the interview itself and the analysis) • Relatively expensive • Hard analysis • Socially desirable answers • Personal bias of the researcher

Focus group		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Group of respondents who are heard about their opinion, feeling and attitude towards a certain product, service, brand, ... • 3 to 8 people • Organized discussion: respondents actively participate in discussing each other's points of view • Goal: deeper insight into experiences, preferences, stories, memories, views, needs, ... • Is often recorded (to know who said what and when) 	<ul style="list-style-type: none"> • Low costs • Less time intensive than an interview • The results are miscellaneous • You can build on answers from other people • Profundity • Input and control of the researcher • Possibility to ask more questions and go deeper into the conversation 	<ul style="list-style-type: none"> • Still time intensive • Hard analysis • Dominant people prevent other people from daring to say something • Some people don't dare to answer because there are other people in the room • Representative? • Personal bias of the researcher • The expertise of the researcher is important to monitor focus group



<ul style="list-style-type: none"> • Often several groups around the same research question • Used when you want to explore: to get an insight on experiences, views, needs, memories, fantasies, ... or when you want to generate new ideas or products 		
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Observation		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Watch, listen, feel, test and systematically record phenomena • By joining them in their daily routines • In order to understand the lifestyle of people or their behavior • Observation framework: AEIOU http://www.drawingideasbook.com/images/AEIOU_worksheets.pdf • Used when your research question is a how or what question • Predicting behavior in the future (no focus on behavior in the past) • When little is known about your research question 	<ul style="list-style-type: none"> • Profundity – rich information • Input and control of the researcher (adaptive) • Possibility to ask more questions and go deeper into the conversation • Extra insights based on body language and expression (lots of information!) • Researcher can build an empathic relationship with respondent (this increases the quality of the information) 	<ul style="list-style-type: none"> • Only descriptive, not explanatory • Difficulties with regard to correct interpretation of behavior • Time intensive • Long duration • Personal bias of the researcher (e.g. less training > don't know at what you have to look at exactly) • Making many choices (who observers, when, where, at which events, ...) – making wrong choices can lead to biases • The presence of an observer can have an effect on the behavior



Service safaris		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • A service safari involves going out into the wild and experiencing a service first hand • Go through the process as a researcher yourself (e.g. go through the process of onboarding) • Explore the process through the eyes of the customer • Shadowing = almost the same but here the researcher doesn't follow the process, but the person • Used in a beginning of a research/project: a first view 	<ul style="list-style-type: none"> • It is a quick way to see the whole story • Real-world experience • It gives an idea how the customer will feel in the process (his thoughts, frustrations and worries) • "get inspired" • To avoid "oh shit" moments • Fast • Low costs 	<ul style="list-style-type: none"> • No deep and comprehensive insight • Need for additional insights from real customers (can therefore be combined with other researched methods) • The researcher can still experience it differently than other employees or customers

Social hackathon		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • An event in which people with different expertise and experiences put their heads together to solve a specific problem within a short, defined time • To gain new insights and solutions in no time • By sharing best practices and experiences (~ brainstorm) that will lead to a concrete plan • Why? People often get stuck with the idea phase, because they don't have the right network or don't know 	<ul style="list-style-type: none"> • Gives a lot of insights in what the needs and requirements are • Fresh/new look • Go beyond an interview or focus group because you actually let the employees work towards concrete plans • Quick way to come up with new insights + solutions • Instant recruitment + public relations 	<ul style="list-style-type: none"> • Time intensive • Expensive (location, food and drinks, staff, ...) • Requires a lot of organization • Not always realistic solutions



<p>how to realize it</p> <ul style="list-style-type: none"> • The public can be diverse: students, employees, experts, ... • Used when you have a concrete view of what the research problem is and what exactly the needs are of the population • Used for problems that require creative solutions (coming up with new ideas + innovation) 		
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Case study		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Detailed, in-depth, intensive, ... research to gather knowledge about a single case or number of related cases → to better understand other similar case • The case may be: persons, families, classes, schools, organizations, events, processes, etc. • A combination of different research methods is often used • The researchers are often not interested in representative cases, but in the exceptional cases and outliers • Used for an exploratory research: to gain information / inspiration or when there doesn't exist a lot of information about the problem • Used for descriptive 	<ul style="list-style-type: none"> • Depth • Allow much details that is not easily obtained by other research methods • Information about natural context because individual events or cases are examined in depth in their context 	<ul style="list-style-type: none"> • Time intensive • Generalizability? • The researcher assumes that the conclusions are equivalent across the different groups • Difficult to make statements about causality



<p>questions (what) or explanatory questions (how or why)</p> <ul style="list-style-type: none"> • Used to study the effects of changes, new programs or innovation 		
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Diary study		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • A user documents his/her feelings while undergoing certain experiences • Logging activities / behaviors over a certain period (e.g. by collecting photos to explain the activities) → it sometimes gives a better view than words • Can go from 2 weeks to 2 months • Search for a pattern of behavior • After this, go through the diary and go over it (sometimes in a group) • Used for an exploratory research: the collection of self-reported data form participants interactions or events during a certain period of time 	<ul style="list-style-type: none"> • A lot of information through time • In the natural context of the participants • Possibility to investigate fluctuating feelings, thoughts and behaviors • Reliable data 	<ul style="list-style-type: none"> • Relatively small sample • Clear instructions are required • A lot of preparatory work for the researcher • Infringement of the respondent's daily life?



Delphi		
What and when?	Advantages	Disadvantages
<ul style="list-style-type: none"> • Aimed to retrieve the opinion of those involved in all layers of the organization • A carefully selected panel of experts • Different rounds with different forms of communication • The start is often a written round: every expert receives a questionnaire with hypotheses, on which he or she can give his/her vision. This is done anonymously, and the results are then fed back to the group. This process is repeated as long as necessary • Structuring information flow → feedback to the participants → new insights (→ possibly repeating) • The purpose of the Delphi method is to make an inventory of all relevant alternatives and arguments concerning the subjects, so that the client can make a thorough decision • It is used when we seek a complete picture of the opinions and interests of the participants involved • The results offer support in making a well-considered, thorough decision 	<ul style="list-style-type: none"> • Accessible • Anonymity or in small groups • You reach all layers in the organization • The decision that follows is more supported • Developing support 	<ul style="list-style-type: none"> • Time intensive • Long duration • Requires expertise from the researcher • The outcome depends on the choice of the participants • Prejudice inhibits creativity? • Group remains fairly limited

(Sociale Hogeschool Heverlee, 2018).



9.2 Annex 2: Blank form informed consent



Consentement éclairé

- Je suis suffisamment informé sur le but de la recherche et je suis informé que celle-ci fait partie du TFE (projet bachelier) d'un étudiant du département 'Sociale School Heverlee' à UC Leuven-Limburg et que l'étudiant effectue un stage au CNP Saint-Martin.
- Je participe volontairement à cette recherche.
- Les résultats de cette recherche peuvent être utilisés à des fins scientifiques et peuvent être publiés.
- Mon nom n'est pas publié et la confidentialité des informations est garantie à tous les stades de l'enquête.
- Je me réserve le droit de mettre fin à ma participation à la recherche à tout moment et je sais que cela ne devrait pas me causer de désavantages.

Etabli en trois exemplaires à le

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Lu et approuvé,

Nom et signature du répondant

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Nom et signature de l'étudiant

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9.3 Annex 3: Blank interview questions

Je veux commencer à poser des questions par rapport au votre fonction :

- Est-ce que vous pouvez m'expliquer brièvement ce que vous faites, quelles tâches vous devez réaliser, ...

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- Vous travaillez seule ou en équipe ?

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Maintenant, je veux demander des questions par rapport au TuTo+, ce que vous avez déjà appris dans les 3 jours de formation.

Au sujet des connaissances explicites (les 'hard skills') qui ont été acquises au cours de la formation :



- Pouvez-vous m'expliquer brièvement ce que vous avez appris pendant la formation TuTo+ ?

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- Pouvez-vous me dire une chose que vous avez apprise de la formation qui est très utile dans votre fonction ou dans cette organisation ?

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- Avez-vous constaté des améliorations au niveau d'un élément spécifique qui est important dans votre travail ?

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- Avez-vous appris une nouvelle façon d'utiliser quelque chose dans votre travail, que vous faisiez différemment avant la formation ?

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Au sujet des connaissances implicites (les 'soft skills') :

- Est-ce qu'il y a quelque chose que vous avez appris de la formation, mais que ce n'était pas vraiment un objectif de la formation TuTo+.
(Par exemple : si vous n'avez pas l'habitude de travailler en équipe, ça pourrait être quelque chose que vous avez appris).

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- Maintenant je vais vous montrer 12 cartes. Ces 12 cartes sont les douze 'soft skills généralement' avec une petite explication de ces compétences. Vous pouvez en choisir quelques-uns que vous pensez avoir appris ou amélioré de la formation.
→ Si vous en avez choisi, je vous demanderais de répondre pour chacun à ces questions :
 - Qu'est-ce que c'est passé que vous avez appris ce soft skill – qu'est-ce qui vous avez amené à apprendre ça ?
 - Pouvez-vous me donner un exemple pour montrer que, maintenant, après la formation, vous maîtrisez ce soft skill ? Que faites-vous différemment du passé (avant-après) ?

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Au sujet de la transférabilité à d'autres personnes :

- Avez-vous partagé les connaissances acquises lors de la formation avec d'autres personnes ?

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- Y a-t-il une situation où vous avez appris quelque chose à une autre personne où les connaissances/compétences proviennent de la formation ? Ou peut-être donnez des conseils plutôt sur les 'soft skills' que vous avez appris ?

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Réflexion :

- Comment avez-vous trouvé ma recherche ? Comment vous vous êtes sentie ?

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- Est-ce que vous souhaitez d'être tenu en courant de ma recherche (sur les résultats, les analyses) ? Et si oui, comment ?

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- Vous avez encore des questions ?

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Adaptabilité et flexibilité

- Adapter les nouveaux changements comme un nouveau défi
- S'adapter aux nouvelles situations
- Modifier les approches des nouvelles situations si le contexte l'exige

Motivation

- Être motivé et motiver les autres
- Être énergique et enthousiaste
- Réfléchir votre propre performance et votre travail
- La façon dont vous envisagez votre travail et vos tâches

Gestion des responsabilités

- Comprendre les tâches assignées
- Demander de l'aide au besoin
- Assumer la responsabilité de ses propres actes sans blâmer qui que ce soit d'autre pour quelque chose dont il est fiable
- Le besoin (ou non) que d'autres personnes expliquent vos responsabilités liées à vos tâches

Gestion du temps

- D'être ponctuel
- D'organiser et de respecter les échéanciers, en déterminant les priorités
- Gérer efficacement les flux de travail et les réunions



Compétence de communication

- De parler clairement et poliment à tout type typologie (patrons, collègues, patients, ...)
- Utiliser correctement le langage corporel, le geste, le ton et la hauteur des voix à différents niveaux et dans différents contextes
- Savoir quel média utiliser pour communiquer à différentes niveaux et contextes
- Présenter l'information (y compris l'information technique) clairement dans un style facile à comprendre
- Comprendre et interpréter les données avec précision pour appuyer efficacement son travail

Travail en équipe

- Capacité de travailler en équipe et en collaboration pour obtenir des résultats
- Jouer un rôle actif dans les discussions des groupes de travail en prêtant attention au point de vue des autres
- Partager l'information volontaire avec d'autres et donner de l'aide au besoin



Gestion des conflits

- Détecter un conflit à un stade précoce sans avoir peur de l'appeler un « conflit »
- Gérer un conflit lorsqu'il survient (et comprendre quels conflits ne peuvent pas être résolus)
- Servir de médiateur de manière que ses objectifs et ceux des autres soient atteints (situation gagnant-gagnant)

Compétence de comprendre les besoins des autres

- Offrir du soutien aux autres (collègues, clients, ...)
- Identifier et répondre aux besoins des clients (patients) et communiquer poliment



La prise de décisions

- De faire un choix parmi un éventail de possibilités, en priorisant les actions
- Utiliser différentes approches décisionnelles et réfléchir aux résultats des décisions

La résolution de problèmes

- Trouver et résoudre efficacement des problèmes routiniers et non routiniers pour atteindre les objectifs de travail
- Anticiper les problèmes et réfléchir aux résultats

La créativité et l'innovation

- Pour trouver de nouvelles solutions, de nouvelles approches, ...
- De penser « out of the box »
- Soutenir de nouvelles idées susceptibles d'entraîner des changements dans l'environnement de travail



La pensée critique et structurée

- Analyser et valoriser l'information
- Accepter les critiques constructives
- Être capable de penser de façon critique (évaluer une situation à partir de différents points de vue)







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