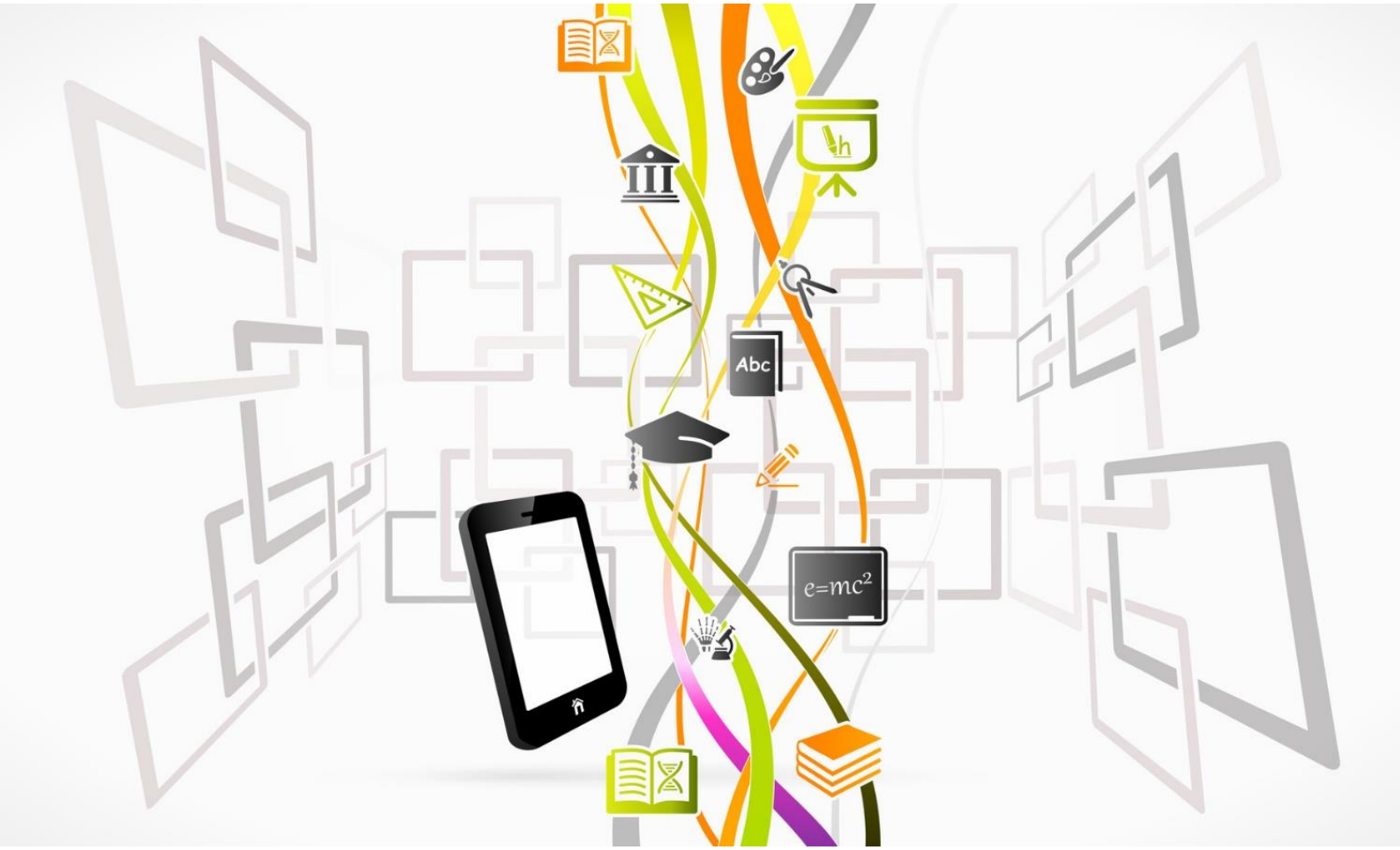
LIFELONG LEARNING IS BETTER LIFE

"THE SEARCH FOR NEW METHODS OF ADULT TEACHING"



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This publication was funded with support from the European Commission.

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INTRODUCTION

Adulthood is a stage of human life that begins just after the process of growth and biological maturation, that is, around the age of twenty and lasts into old age. Thanks to personal development, life and social activity, an adult has the possibility of transgression, *i.e. crossing the limits of his abilities.* One of the most important activities of adults is education. Today, dynamic technological development has forced the emergence of a new society, known as the knowledge society. Knowledge has become the main factor shaping social and civilization progress. We live in an age of digitization in which rapid learning is one of the most important competences. This applies to the entire society, including adults.

According to Beata Boczukowa, we define adulthood in three dimensions *"as a human social condition, as a process of mental development and as a socio-cultural process".* The development of an adult does not end with his growing up. People has the right to continuing education at any time of life, and it is the responsibility of the state authorities to ensure the availability of various forms of education.

Jakub Jerzy Czarkowski points to three adult learning systems: "formal education refers to institutionalized forms, such as schools and colleges. Teaching and learning are carried out in accordance with standards based on permanent, in terms of time and content of learning, forms such as classes, grades, programs or textbooks". In addition to the established education system, we are dealing with non-formal education as "self-employed activity, enabling a specific group of participants to achieve their educational goals and meet the needs in this area (...) takes the form of workshops, trainings, courses". According to Czarkowski, the third form of education is **non-formal education**, which includes unorganized and even incidental learning. "This way the learner acquires knowledge and skills, shapes his attitudes, consolidates values, using the daily experience and educational influence of his environment." This process takes place throughout the whole adult life of the people.

A mature person who has completed formal education most often chooses the forms and methods of their education themselves, so we are dealing here with self-education. The role of self-education increases after childhood, when man becomes responsible for his own life and development. Marlena Plebanska points out that *"those who are unable to write or read will not be 21st century illiterates, but those who cannot learn, unlearn and teach again." Learning is one of the most important factors determining our success or failure now and, in the future".* The interest in adult education, including distance education, is constantly growing, although the system does not provide enough solutions, there is still a lack of the Act on lifelong learning for adults. Therefore, adults who want to develop and educate are looking for knowledge on the Internet, although they often feel like digital immigrants because *"their brains were shaped in times when face-to-face social interactions were the norm, and now they feel lost in the new, digital world ".* Without the Internet, however, new information and communication

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technologies would never have spread. Constant boom in these areas causes development in economic and social structures as well as in education. Therefore, the Internet and related activities in the field of self-education have a huge role for the success of individuals and entire societies. Universal education is becoming borderless education and learning opportunities are available to everyone and all ages.

Considering the importance of adult education, “Lifelong Learning is Better Life” project has been launched, which aims to create a new methodology for teaching adults in the context of nonprofessional education and to create tool necessary to implement this methodology (course programs and educational platform), thereby creating paths for improvement skills and effective encouragement of adults from the target group to develop and improve digital and social competences. To achieve this goal a methodology for a reliable non-professional education of people older than 30 years old is presented, which includes a qualitative and quantitative research.

I.1 RESEARCH DESCRIPTION

SSF staff, in coordination with STAWIL and GLAFKA involved in the project "Lifelong Learning is Better Life" (LLL), initially elaborated a work plan to define the different objectives of the first Intellectual Output of the “Lifelong Learning is Better Life” project (LLL), as well as the different deadlines set for its achievement.

The draft of this work plan was elaborated before the kick-off meeting of the LLL project in Rzeszów, Poland. During the kick-off meeting, the three partners of the project defined the final Work Plan, with the dates and activities set out in an internal document.

Subsequently, SSF developed a questionnaire aimed at low-skilled people over 30 years old (Annex I). The aim of this questionnaire is **to identify any possible ways of reaching people who are currently not in education, but at the same time have low digital and social competencies, as well as low motivation.** In order to achieve this objective, different questions were posed, which are classified below:

I.1.1 SOCIO-DEMOGRAPHIC DATA

In order to know the profile of the person participating in the project, a series of socio-demographic questions were elaborated. The following questions were considered: *age, gender and professional situation (multi-response question: "employed", "unemployed", "seeking job"*).

I.1.2 WORK AND PROFESSIONAL EXPERIENCE

Participants were asked to name their last three jobs, as well as the duration of each job. Finally, after analysing the data collected, SSF considered not to include this information in the final report, as it did not contain valuable information for the achievement of the objective of the Intellectual Output.

I.1.3 EDUCATION AND TRAINING

The participants were asked to mark the level of education or training that he or she currently had. This box was useful to identify those users over 30 years old with low

educational levels. The answers "Primary" and "Secondary / high school" were considered as "low educational level". The consortium understood that, those persons who have professional training / VET, bachelor's degree, Master's degree or PhD; are not characterised by having a low educational level. Therefore, all those who participated in the research and checked these boxes were not considered for data analysis.

I.1.4 SKILLS AND COMPETENCES

The participants were asked to mark with an "X" the skill-box they consider, being "1" = "I have a low skill / competence level" and "5" = "I have perfect skill / competence level". Considering the objectives of the project, this section was divided into three parts:

- **Using ICT in everyday life.** In this section, subjects were asked about their skill / competence level in the following areas: "How to use the computer", "How to use the mobile phone", "how to use the email on computer", "how to use email on smartphone", "how to use Google for searching something", "how to use Word", "how to use Facebook", "how to use Instagram", "how to use WhatsApp", "how to use Youtube", "how to search job on internet", "how to upload photos to internet from the smartphone", "how to make an appointment (medical, public, administration, etc.)", "how to install a new app on the smartphone", "how to study online (courses, etc.)", "how to ask for a taxi via app (Uber, Cabify, etc.)", "how to use Google Maps (or other online map or GPS System)".
- **Safety.** In this section, participants had to answer about their skill / competence level in the following areas: "how to be safe on internet", "how to create a secure password for your different accounts (e-mail, bank account, etc.)", "how to download with safety from internet", "how to manage bank issues (bank transfers, check your bank account, etc.)".
- **Hobbies and passions.** In this section, the participants were asked about their skill / competence level in the following areas: *"playing videogames on computer", "playing videogames on smartphone", "how to buy on internet", how to search leisure activities", "how to search flights for travelling", "how to book a Hotel room", "how to listen/download music", "how to watch series and films" and "how to search courses, tutorials, learning activities".*

I.1.5 EDUCATIONAL NEEDS

The participants were asked about the educational needs, through four questions that were considered.

"What do you think you need to learn regarding digital skills?". The following alternatives were offered:

- Information and data literacies (browsing, searching and filtering data, information and digital content)
- Communication and collaboration (interacting /sharing through digital technologies)
- Digital content creation (developing digital content and / or programming)

- Safety (protecting devices, personal data and privacy, health and wellbeing, and / or environment)
- Problem solving (solving technical problems, identifying needs and technological responses)

Other than the activities listed before, what other activities would you like to do by using technologies?

Why do you think digital competences are useful? This was an open question to be answered by the participants of the research.

"Where do you usually look for information about your passions / hobbies?". The following alternatives were offered:

- Social network
- Internet browser
- Associations
- Public bodies / administration
- Through my friends / family
- Newspapers
- Other (specify):

"How often do you use these resources? ". The participants were asked to mark with an "X" the resource-box they considered, being "1" *" = "I never use these resources"; and "5" = "I always use these resources". The following areas were presented:*

- Employment services (public)
- Employment services (associations, NGO, companies, etc.).
- Technological workshops
- Leisure and free time association
- Social Services
- Library
- Cultural Centre
- Sport facilities
- Support groups
- Services for people over 65 years old
- Parents associations
- Adult schools
- Food bank
- Other (specify).

This question was especially important to have information about the spaces and resources used by the target group **to identify any possible ways of reaching people who are currently not in education.**

It is important to mention that SSF, GLAFKA and STAWIL, did a qualitative research of good practices and methodologies that have had a positive impact on "Lifelong-Learning" interventions, which have been used to develop the present document.

I.2 RESULTS

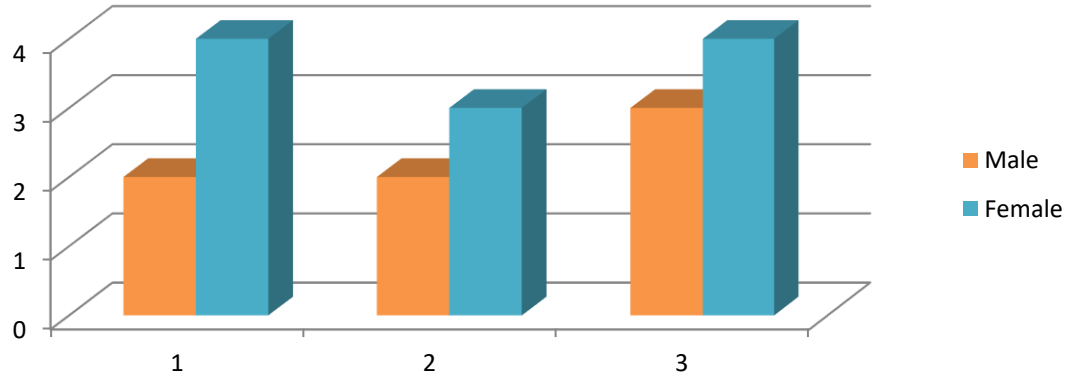
The results obtained after applying the questionnaire to the target group are presented below. The data obtained were collected during the months of December 2019 and February 2020.

Survey

The partners (SSF, STAWIL and GALFKA) carried out the survey among the users of their services with the support of two organizations per partner. **53 participants answered the questionnaire** (20 by GLAFKA, 17 by STAWIL and 16 by SSF) but among the answers were people that didn't fit in the target group of the LLL project (people over 30 years old with low skills or qualifications[1]). Considering this profile, **the final result is 18 cases**, that is, 18 participants "over 30 years old with low qualifications".

I.2.1 SOCIO-DEMOGRAPHIC DATA

Age	Male	Female	TOTAL
31-40	2	4	6
41-50	2	3	5
51-70	3	4	7
TOTAL	7	11	18



I.2.2 WORK AND PROFESSIONAL EXPERIENCE

33.3% of participants are employed, while 66.7% are unemployed and seeking job.

[1] *Low qualified level: participant with basic educational level.*

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I.2.3 EDUCATION AND TRAINING

As explained before, all the participants have low skills, understood as they finished primary or secondary education.

I.2.4 SKILLS AND COMPETENCES

Using ICT in everyday life

2,6 as average, so we can consider a medium skill level in general. Nonetheless, there are important differences that it's useful to point out. Use of *Whatsapp* (3,7) and *Youtube* (3,6) have the highest average score, while *Twitter* (1) and using apps for order a taxi (1,7) have the lower. *Whatsapp* is used mainly to send and receive messages, but there is an option that can be useful for spread information among people. Also, we can see that **people have highest level in using a smartphone (3,2 points) than the computer (2,6).**

Safety (1-5)

The average scored in the category "Safety" is 2,2, so participants have a medium-low level in this digital competence. The subcategory rated with the highest number is "how to create a secure password". Normally, when people create an account (email, apps, websites…) there is a criterion for the password (number of letters, if a number or capital letter is required). But on the other hand, there are more issues related to safety that people need to go deeper.

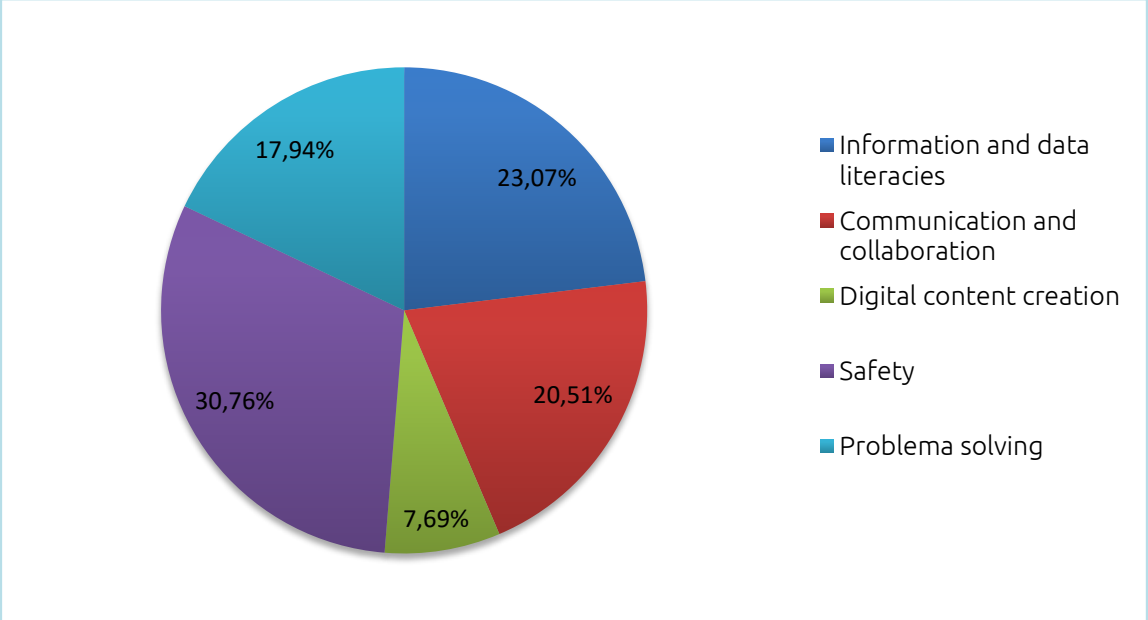
Hobbies and passions (1-5)

Average: 2,4. How to listen/download music has been scored with 2,9 while playing video games on the computer and booking hotel rooms have been scored with 2,1 points. Taking to account the target group (most people are between 51 and 70 years old) we understand that they are not used to play videogames, so teaching by videogames cannot be used as a methodology *(see 3." Conclusions and Recommendations").*

I.2.5 EDUCATIONAL NEEDS

Educational needs regarding digital skills

We can see that most of the answers refer to "*Safety*" as an educational need (30,76%), followed by "*Information and data literacies*" (23,07%) and "*Communication and collaboration*" (20,51%). According to the score that we found in the Safety item, it seems that the participants are aware of their low skill level and the necessity of improving it.

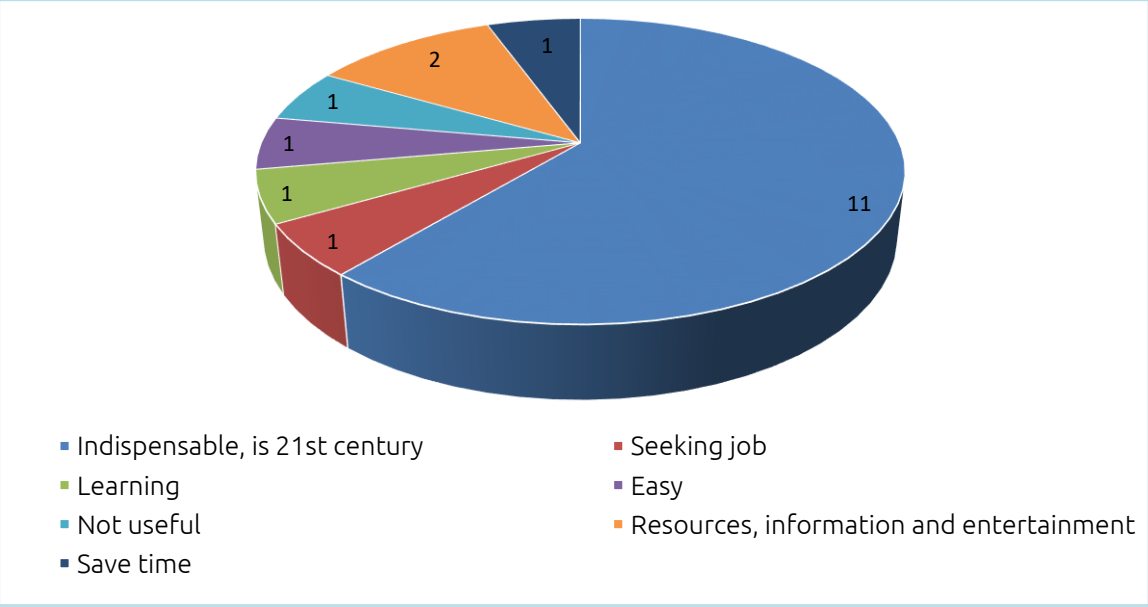


What other activities would you like to do by using technologies?

41% of answers refers to online courses or searching for information properly; 25% said activities related to labour issues (seeking job, creating the CV) and 34% refers to different activities, such as playing with the mobile, use of social networks and online bank.

Why do you think digital competences are useful?

This question is particularly important because in adult education is crucial to link education content with personal motivation. We can see that majority of people feel that technology is everywhere, it is something inherent to today's world, and they need digital competences to be connected to the world and its opportunities.



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"Where do you usually look for information about your passions / hobbies?" (multichoice)

Related to this question, people mainly look for information about passions and hobbies in *"social networks"* (11 answers), followed by *"through friends and family"* (6), *"Internet browser"* (5), *"public bodies/administration"* (3) and "newspapers".

"How often do you use these resources? "

"Employment services" (associations, NGOs, companies, etc.) have been rated with the highest score, 3,2; followed by *"Social Services",* with 2,8, a *"public employment service"* (2,5). Most people that answered the questionnaire (66,7%) is unemployed and they used this kind of resources, so improving digital skills can be linked with the employment courses and programs.

I.3 CONCLUSIONS AND RECCOMENDATIONS

Although the data collected does not provide statistically significant information, it is useful to identify the needs of the target population and to better understand the strengths and weaknesses of people over 30 with a low level of education. Although we cannot make population inferences from the sample collected, the data allow drawing **conclusions about how to access the population over 30 years of age with a low level of education**, how to **improve the intervention with the group** through continuous training and life-long learning, as well as **to take some advice and recommendations for professionals** working with the target population.

Regarding **gender**, there were more women than men in the sample (11 and 7, respectively). There were no major differences between them in the results of skill level, despite the ones that we can see in the table below.

	Women	**Men**
Using ICT in everyday life	2,6	2,5
Safety	2,2	2,1
Hobbies and passions	2,2	2,6

Table 1. Average scores (from 1 to 5 points)

As we can see, according to the results of this survey, women have more skills in two of these three categories. The mayor difference among gender is found in the category *Hobbies and passions*, where women recognised themselves as having less skills or competences in using technologies for issues related to hobbies and leisure time.

Furthermore, inside the category "Using ICT in everyday life", we find the biggest difference in average use of *WhatsApp* (women point it with 4, men with 3,1). Inside "Safety", women have more skills in creating secure passwords than men (2,5 and 2,1, respectively). To end, in the category "Hobbies and passions" (the only one that the average level is higher for men), the biggest difference can be found in "playing

videogames on smartphone". We find a difference of 1,18 points, according to the stereotype of men playing more videogames in general than women.

There is also interesting to compare the use of resources taking the gender into account. Women to answered the questionnaire use more the *employment services (public and private, from associations, NGO's)* than men, and men uses more *support groups* and *leisure and free time association* than women.

There were differences between the employment situation of the participants: 66.7% were unemployed or seeking a job, while 33.3% were working. So, the population that participated in the research with a low level of education[2] and over 30 years old were unemployed. This data coincides with other previous research (García and García, 2008; Izquierdo, 2008), which suggests that personal characteristics such as training or work experience have an influence on unemployment and not only external factors such as the economic crisis. This must be considered when making a professional intervention, since *unemployment* in people over 45 years old during larges periods can work as a mediating variable in "work attitudes". People with this profile may make external attributions to the unemployment situation and not carry out job-seeking activities (Rus, 2012). It is recommended to refer the person with these characteristics to labour counselling programmes, which favour an attitudinal change in people over 45 years old. This change can increase the person's training and work opportunities and reduce the economic and social cost of unemployment.

Regarding the competencies and skills evaluated in the research, these were divided into competencies/skills related to the *"Using ICT in everyday life*", "*safety*" and "*hobbies and passions"*.

The average obtained in the section "Using *ICT in everyday life*" was 2.6, which indicates that the participants had a medium level of competence in this area. It is important to mention that the participants have a good level of competence / skill in the use of platforms such as *WhatsApp* (3.7) or *YouTube* (3.6). We conclude, therefore, that a positive mechanism **to access to the population over 30 years old with a low educational level, could be through messages or *Whatsapp* dissemination groups, as well as through advertising on *YouTube* channels**. Suárez, B. (2018) highlight that the *Whatsapp* tool allows the support in the teaching-learning process, favours effective communication and the access and exchange of information and motivation of the users. In order to work on training deficiencies, it is also recommended to use the *YouTube* platform, since it has many training videos and tutorials that can be reproduced autonomously by the target population, in order to improve their self-knowledge and continuous training. Other research concludes that *YouTube* is a useful tool for managing content, setting up learning communities and offering training of different skills (Ramírez-Ochoa, 2016). It is recommended to **contact the target population through mobile phones, as they have shown a higher level of competence in this area.**

[2] *The research considered as low educational level those participants who indicated to have primary or secondary studies.*

The average obtained in the "*Safety*" category was 2.2, so the participants showed a low level of competence/ability in this area. Therefore, it is recommended that professionals working in education of people over 30 years old, first evaluate the degree of safety of the participant's passwords and access accounts, and then, provide practical advice to increase the safety of their access accounts. Research shows that the greatest cases of phishing take place on Paypal or Facebook (Haro, 2011). It is recommended that the professional considers the following aspects to increase the "technological safety" of the target population:

Technological Safety. Recommendations
Use safety passwords: include letters, numbers and other symbols in the password.
Use an antivirus
Secure the networks: use a good firewall to protect access to the private network.
Protect your WiFi by using a safety password.
Be wary of free public networks.
Keep your computer and mobile phone updated.
Be aware of the publications in social networks.
Back up your data.
Do not lose your mobile phone.

The average obtained in skills and competences related to hobbies and passions was 2.4. It is important to mention that people over 30 years old with a low educational level, do not have a good level of competence and skills in videogames: therefore, **we do not recommend training methodologies for lifelong learning by using videogames** with this target group. We do recommend evaluating the different hobbies and passions of the group, as these can be a way of incorporating new skills, attitudes or knowledge necessary in the continuous training of the participant.

Regarding the educational needs, the results show that a large percentage of participants refer to have educational needs related to "*Safety*" (30.76%): in these cases, we recommend making use of the advice mentioned above, checking mobile phone and e-mail passwords, etc., as well as providing training on the importance of technological safety. For those who mentioned to have needs related to *"Information and data literacies"* (23.07%), we recommend to evaluate which data or information they want to improve, in order to prepare an individualized attention itinerary oriented to their needs, or a referral to a service that allows them to receive this training. For those participants who report difficulties related with *"Communication and Collaboration"* (20.51%), we recommend the use of workshops' groups about "Social Skills", "Assertive Communication" and "Conflict Resolution".

41% of the participants answered that they would like to use technologies to conduct online courses or to search for information in an appropriate way. For this purpose, it is recommended that the professional working with the target population first evaluate which courses are the participant interested in (training courses, hobbies, interests,

etc.), and offers resources oriented to their needs. There are many entities that offer distance courses through Internet, such as VET centres, Universities, Associations or public administrations. For those people who want to improve their search for information properly, it is recommended to work together (in peers) making simulations. It is important here to carry out a search by using keywords in meta-searchers such as "Google" or "Yahoo".

25% of the participants mentioned that they wanted to use new technologies for activities related to labour issues. In these cases, it is recommended to carry out an individualized itinerary of labour orientation, to identify the specific needs of the participant and then, offer individual intervention to improve their job searching, and workshops' groups related to the "Active Job Search".

On the other hand, when participants were asked about *"Where do you usually look for information about your passions / hobbies?"*, most of the sample answered that in "Social Network" (11/18): this data shows that **it is recommended to use social networks** such as Whatsapp, Facebook or Instagram; **to access the target population on issues related to hobbies and passions.**

The last question of the questionnaire *("How often do you use these resources?")* provides information on how to access the target population, since the highest score collected was that referring to employment services (3.2), such as associations, NGOs or companies; followed by Social Services (2.8) and Public Employment Services (2.5). Therefore, **these three resources are one of the key points for accessing participants over 30 years of age with a low level of education.** It is important to mention that this data may be mediated by the high percentage of unemployed people who participated in the study (66.7%).

Below, you will find more conclusions and recommendations regarding (1) "The specificity of teaching and learning of adults", (2) "Methodology of Adult Education" and (3) "IT Security".

II. THEORETICAL FRAMEWORK AND METHODOLOGIES

II.1 Specificities of adult teaching and learning

II.1.1 Adult education

One of the main objectives of adult learning and teaching should be inter-generational integration, as well as individual activation of people by strengthening their awareness.

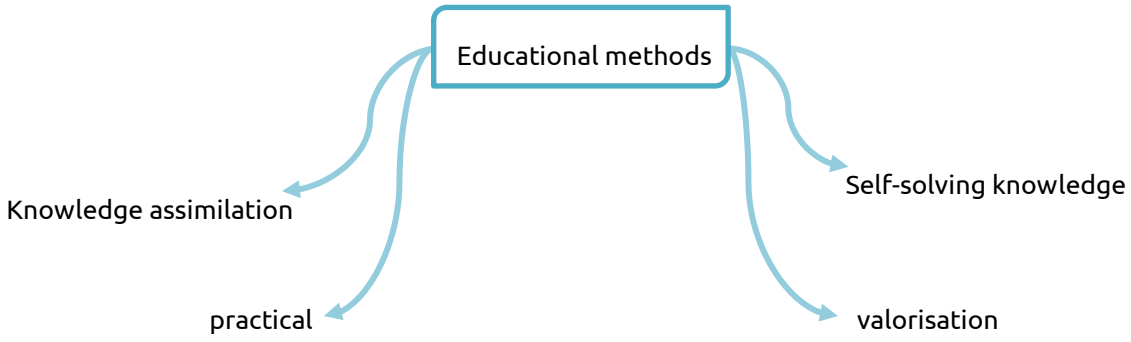
Exercises aimed at developing intellectual skills improve the motor skills, perception and memory of older people. It should also be remembered that the pace and level of actual aging depends on individual biological characteristics, their lifestyle, experiences and even the culture in which they have lived all their lives.

Adult education has its specificity and is based on rich experience, knowledge and beliefs. Adults often find it difficult to learn new content because they constantly confront it with the world order and thinking habits. Nowadays, learning is defined very broadly as the entire information gathering process. Our level of knowledge can increase everything we hear, watch, read. Every adult usually adapts science to their individual needs and requirements.

II.1.2 Teaching methods, forms, techniques

A method should be understood as a conscious and consistently applied way of acting in order to achieve a specific objective, a set of deliberate actions and measures, or a method of researching things, phenomena or rules applied to study reality. Wincenty Okon, when writing about teaching methods, applies the concept of the teaching-learning method. Kazimierz Zegnalek considers this approach appropriate, because in this way Okon clearly links the teaching process with the learning process, and Zegnalek calls the absence of such a link irrational and meaningless. Of the various methods of teaching known to us, Wincenty Okon points to four groups, in each of these groups, one is superior to the other, which according to the author imposes the fact that this division is not separable.

Figure 1. Division of Educational Methods



Source: Author's own study, based on W. Okon, Introduction to General Didactics, Warsaw 2003

The methods and forms of adult education in the field of new media are based on theoretical and practical parts. The theoretical part, e.g. in the form of a lecture that introduces new content, should be clear and structured in terms of content, the use of simple language with the use of content links and knowledge imaging is recommended. The whole should not last longer than 20 minutes. The theoretical part should contain various variations, e.g. photos, films, charts, diagrams, animations. In addition, the message may be reinforced by anecdotes or funny comparisons. The ability to ask questions during the lecture is very valuable in order to assess the level of understanding of the content. Every teacher who creates a course on the platform should think about three basic aspects:

- how interesting it is to provide theoretical content
- what activities to plan on the course
- how to build a team of students and improve communication between them.

Interactivity of courses significantly enhances students' motivation and effectiveness. Every discussion on this topic will help you to master the new content. Therefore, methods that support the educational process include discussion moderation, mediation between participants and negotiation. Videoconferencing, sometimes used during online courses, also enables observation of participants. In discussions conducted e.g. via a forum, the teacher has important roles to play, primarily analysing answers, synthesising knowledge, helping to develop topics and even signalling his interest in students' problems. These activities are of a different nature than those of synchronous teaching, in a sense the activity and creative thinking skills of the teacher must be greater. Small group discussions within the course, as well as the performance of specific tasks in working groups are one of the most common forms used in remote learning. The participants work individually or take part in debates, presentations and learning projects in which they help each other.

II.1.3 Adult remote teaching as an innovative teaching method

The teaching methods in remote courses should be correlated with the learning objectives and content. For many people over 50, adapting to the digital world is a problem because it requires getting rid of old ways of thinking and acting. Achieving the ability to function in a virtual world, in a space reserved for the young generation, is a satisfaction. Such independence strengthens self-esteem, self-confidence and promotes the operability and resourcefulness of life. Admission to remote courses for adults can bring the following benefits:

- Development of competences related to handling new media, including mastering basic IT vocabulary (overcoming fears and barriers in this area).
- Creating a habit of self-education, including the development of critical and creative thinking related to the ability to search and choose content (equalising educational opportunities).
- A possibility of broadening knowledge and interests without leaving home and almost independently of the level of physical fitness (stimulating cognitive curiosity).

– Development of communication with other network users (e-mail support, social networking, use of SKYPE remote communication programs).

II.1.4 Barriers to adult learning

People were instinctively implemented in a technical society. Information technology systems are beginning to decide about everyday functioning, comfort and safety. Meanwhile, the older generation, compared to the younger one, has little confidence in the new media, probably due to a lack of knowledge of these technologies and a lack of understanding of the language used by the virtual world. Older people prefer contact with an individual teacher, face to face, and have much greater resistance to commenting publicly on this issue compared to young people. The main mistakes in e-learning courses, which are indicated by remote theorists, are:

– The lack of a clear overall course goal and specific objectives, and thus an incomprehensible course structure
– The lack of comments, references and interactions in the course content layer
– The theoretical part is too broad
– Providing texts, e.g. as a PDF or Power Point file, as the only form of transmission
– Poor technical and factual quality of materials placed on the course
– Low level of knowledge and skills presented in the course in the context of the participant's everyday needs
– No clear division of messages due to their specificity
– A lack of care for visual clarity and transparency of the course
– A lack of permanent network access or poor network capacity and failure rate
– Costs related to the purchase of appropriate hardware, software and access to the course.

Factors motivating seniors to participate in remote learning:

– Knowledge of distance learning opportunities
– ICT skills
– Owning computer equipment
– Having the technical capacity to access the Internet
– The need to communicate with people
– For comfort - anytime, anywhere
– Making the course attractive
– Courses for all - minimising the message
– No restrictions on access to class locations
– No logistical restrictions - places to conduct classes
– No spatial restrictions
– No participation fees
– Development and promotion of distance learning
– Promoting distance learning in new technologies.

II.1.5 Barriers and Motivation of adults to education

Motivation is considered has a key in education. One of the objectives of the adult's students learning is, for example, achieve personal development, self-fulfilment and welfare. The motives of the different groups are different, but all adults must have some benefit from education. It is important to consider the socio-economic status, motivational difference in age, gender, educational attainment and life circumstances. According to the age, generally it can be said that young people have a high motivation which is associated with pursuing a specific profession; and **motivation of elderly students usually is connected to the way they spend their free time.** Elderly people are focused on meeting the higher needs according to Maslow pyramid hierarchy. **It is important to difference the external and internal motivation:**

- External Motivation: is given by pressure from the context and environment (e.g. an increase in the level of language required by the student).
- Internal Motivation: act of learning, brings pleasure to the learner.

Some of the main impulses that usually motivate adults' students to learn are the following:

Improving the Job Opportunities:

- Finding oneself in a problematic situation
- Maintaining jobs
- Qualification increase
- Need to get a job
- Request from the employer
- Increasing prestige and desire for social recognition among relatives and acquaintances
- Stimulus from people around oneself
- The pursuit of the personal development
- Leisure time
- Investment in education
- Being a responsible citizen
- Curiosity, joy of knowledge and learning
- Social contact

Also, it is important to consider the different barriers in adult education that can be divided into three big groups: Personal Barriers, Institutional Barriers and Situational Barriers.

Personal Barriers: these are internal barriers, negative perceptions of oneself as educated persons. For example:

- Demotivating School Experience
- Lack of motivation
- Fear of returning to learning
- Age

Situational barriers: these are external barriers, about the current situation of a person at a given time. For example:

- Lack of time (due to the family busyness or work)
- Lack of money or high education costs
- Poor transport to the educational centre / building

Institutional barriers: obstacles set up by institutions

- Lack of transparency
- Lack of information
- Lack of suitable programs
- Unsatisfactory schedule

II.2 Methodology of adult education

II.2.1 Networking – characteristic features

Networking is a terminology deriving from the management sciences, but also terminology and activities specific to technical sciences. In the science of network collaboration management, activities are assigned to facilitate access to talented, creative people who are willing to engage in solving difficult problems and challenges they face. Supply chain logistics collaboration is a long-term relationship between two or more links, based on mutual trust and open exchange of information, which means sharing benefits and risks. So what are the characteristics of this modern networking phenomenon? Characteristic features include:

- Partnership building
- Sharing skills, technology and infrastructure
- Common benefits
- Greater operational efficiency
- More effective use of skills than in individual actions
- Access on the ground-level to the same pool of technical, human, technical and financial resources
- Innovation in the approach to problems and challenges
- Uniform distribution of tasks
- Risk reduction
- Rapid information flow.

Cooperation between organisations/networks is not only building partnerships between enterprises, organisations and institutions targeting a specific area and related sectors of the economy, but also acting in a virtual reality using IT tools. Networking on the Internet is an activity, but also the creation of content and its use by many Internet users at the same time. The implementation of distance learning is a special case of establishing contacts. The above-mentioned features of networking between enterprises and organisations have been fully transferred and used in the implementation of remote learning by means of innovative methods addressed to a specific target group, similarly to Poles living abroad under the project "Knowledge

without barriers - innovative methods of adult education", implemented with the financial support of the European Commission under the ERASMUS + programme, Measure 2: Strategic partnerships.

It is also worth pointing out that networking has its drawbacks. There is no ideal solution. It also has some imperfections. The most frequent are:

- Misunderstandings due to the lack of direct contact
- No consequences in the result
- Delaying the final works.

By presenting networking in adult learning, it can therefore be assumed that remote learning for seniors can become attractive. So far, IT classes have been held in most programmes at the Third Age University and have been very popular.

II.2.2 Inter-organisational activities - the network as a method of operation in remote learning

Probably, the function of sharing skills, technology and infrastructure is another key to the realization of cooperation and networking. The market offer of modern ICT tools for e-learning platforms is very extensive. In a commercial system, we can buy the chosen model or use the proposed license in an open source system (free). Open source platforms meet the requirements for implementing course education. Moodle e-learning platform is very popular all over the world including Poland. Currently, "Moodle is available as open source software under the GNU GPL licence" free of charge. In the presented project, the Moodle Internet platform even provided access to the technical infrastructure. This platform is for teaching and learning. It is a content management system (CMS) specialized in e-learning. In this case, representatives of ground-level partners shared their own skills. In the initial period they shared them at weekly meetings via Skype (instant messenger). Such a focused network, which was created in a purpose-selected group (WSB Academy leader and three partners) is reflected in the efficiency and chances of the project success.

Obviously, it is worth adopting real skills of potential users at the stage of planning or preparing courses, trainings or writing projects. Nowadays nobody wants to start from the beginning. Nowadays, everyone, regardless of age, education, must know something about medicine and economics, at least that is the belief. In this case the partners in the first phase / period, but perhaps the most important ones, tried to create Polish language modules. During the preparations it turned out that Poles living in Liwa cannot teach Polish, although they know it well. The partner from Lithuania proposed a formula that was adopted and accepted by the environment, enriching the language through the course "Selected cultural issues", which was designed for Poles living in Lithuania, who due to their profession or position should use the correct Polish language.

Its aim was to introduce the principles of linguistic correctness, to increase the competence in the use of the mother tongue, and to make Poles aware of the linguistic discrepancies caused by the slower development of the Lithuanian language. The module was enriched with lexical misunderstandings - tasks to be performed.

Innovations in the preparation of the first module also came down to the fact that the Czech partner additionally prepared a culinary course, which was very well received by the audience, and also offered a language emergency service for those who visited the platform and had problems with understanding the language.

The common benefit was mainly related to the preparation of Poles living abroad, but also in small communities to live in the society of the future, where the use of modern technologies, efficient communication by technical means and the ability to communicate regardless of age, historical and cultural divisions will be as necessary as reading and writing is needed today. This is a new civilizational challenge for education, and we must face it. The common benefits are influenced by such functions as:

- Providing comfort
- Always and everywhere
- Making the course attractive
- No spatial restrictions
- No participation fees
- Courses for all
- Minimising the message
- No restrictions on access to class locations
- No Logistic restrictions
- The place to conduct classes.

The possibility of using education regardless of the distance is an exceptional comfort for both participants and trainers. It is a comfort associated with any time of the classes, as well as the place where they are conducted, without incurring additional costs associated with travel, as well as the time spent on the journey. This form is an advantage in terms of communication without limitations. This function concerns minimizing the costs incurred. Generally speaking, we can say that there are no fees for participation in the project.

III. "DESCRIPTION OF THE METHODOLOGY USING CONCLUSIONS IN THE CONDUCTED RESEARCH AND PROPOSALS FOR THE PRACTICAL USE OF THE DEVELOPED MODELS AND STYLES IN ADULT EDUCATION"

III.1 INTRODUCTION

Question: How to teach adults with different types of difficulties effectively and efficiently?

The research and analyses performed by the Grantee focused on developing a teaching methodology that would meet the following requirements:

1. the forms and methods of teaching have a high effectiveness resulting from their use:
   - the latest achievements of andragogy,
   - The Grantee's experience in effective and attractive methods of encouraging participation in learning,
   - appropriate use of ICT methods and tools in teaching,
   - implementation also at the training stage of the skills and competences acquired during training;
2. teaching has a high degree of effectiveness also for people with different types of difficulties;
3. the result has a high possibility of wider use.

The proposed result (developed solution) combines the traditional method of stationary teaching (to a lesser extent) with remote teaching (to a greater extent).

III.2 RESULT DESCRIPTION

The information and experience gained by the Grantee, as well as the data obtained during the research conducted for the purposes of the project led to the development of the following model of adult education, including people with various types of problems:

III.2.1 Training quality assurance - criteria and methods of implementation

No.	Criterion	Method of realisation
1.	Adults are autonomous. They must know the objectives of the training and agree with them internally.	The aims and content of the training are based on a survey of the needs of a given group of learners.

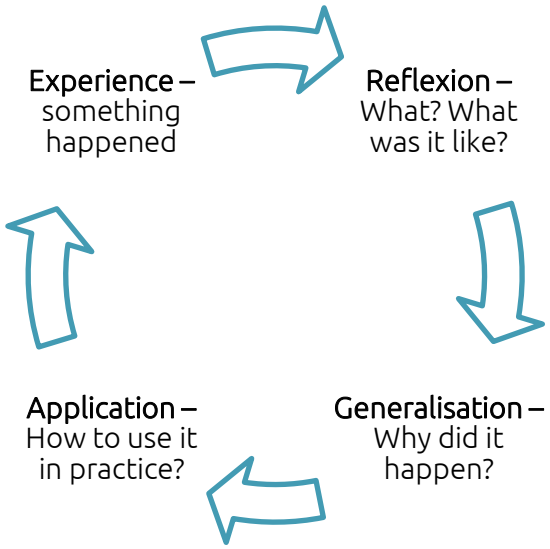
2.	Training is more effective when participants have an influence on the course of the training.	Parallel to the teaching process, a process of evaluation of classes is conducted. Students and teachers are evaluated.
3.	Adults cannot be forced to learn. They must be internally motivated to acquire new knowledge.	Participation in the training is voluntary. However, the condition for participation is: – active provision of feedback required by the training provider; – acceptance of the organisational and technical framework of the training developed taking into account the opinions of the learners.
4.	Adults are willing to base their learning on their own experience and knowledge.	Teaching new skills should refer to existing knowledge, skills and experience, which should be diagnosed before the training (the so-called pre-test).
5.	Adults are goal oriented. They should define goals or know them at the beginning of the learning process.	The aims and content of the training result from the survey of the needs of a given group of learners.
6.	Adults need to see the relevance of the knowledge offered to them to their work tasks or personal needs.	The training shows how to apply the acquired skills in practice; the tasks to be performed by the students refer to their specific life problems or frequently performed activities. Classes are conducted by trainers-practitioners.
7.	Adults want to be treated with respect. They should be able to express their comments and opinions and make sure they are listened to.	Parallel to the teaching process, a process of evaluation of classes is conducted. Apart from closed questions, there are also open-ended questions, which allow the students and the instructors to express themselves freely about the training. Each stage of evaluation ends with a synthetic feedback addressed to the students about: – information obtained from the students; – the conclusions of these for the organiser of the training. – changes that will be introduced to the training after a given stage of evaluation.
8.	Information that stands in strong opposition to the existing knowledge or value system is absorbed more slowly and requires practical exercises aimed at changing attitudes. The more changes affect personality traits, the more difficult the learning process is.	The student has the opportunity to work individually with the trainer of the training (consultations, direct assistance of the trainer in the execution of a given task, etc.). The time of training, including the time for performing particular training tasks is appropriately long and flexible (the training allows the trainee, in a time period appropriate for a given training group, to freely choose the

		time of learning and the time of performing exercises/tasks).
9.	Adults prefer training focused on one problem and exercises carried out at a not too fast pace. Too much new information blocks the possibility of assimilating it.	The training time, including the time for performing particular training tasks, is appropriately long and flexible (the training allows the Trainee, in a time interval appropriate for a given training group, to freely choose the time of learning and the time of performing exercises/tasks).
10.	Adults are less likely to take risks and are afraid of making mistakes. They work more slowly using the insight method instead of the trial and error method. They expect that the tasks they have received to do will be discussed in class.	More difficult exercises/tasks go together with access to: – various types of multimedia tutorials (e.g. in the form of video). – examples of solutions to similar tasks. The student has the opportunity to consult his or her problems concerning the material taught with the teacher as part of the consultation. After each task is completed, the student receives feedback from the trainer about the quality of the task and the possibility to help him/her to improve this solution.
11.	Adults expect commitment and very good preparation for the class.	The training is conducted by experienced trainers. Classes conducted with the e-learning technique are systematically moderated by the trainers and participants can use forms of direct communication with the trainer and other listeners through: – Discussion forums included in the course (asynchronous communication) – group work enforced during the training; – Chats or video meetings e.g. in rooms in Zoom (synchronous communication)
12.	Adult training must be organised in such a way as to ensure mental and physical comfort.	The training provider will meet this criterion by meeting criteria 1-12. In addition, the training will be adapted as much as possible to the learning styles preferred by the learners.

An important element of training quality assurance is the mentoring process which is covered by each training participant.

III.2.2 Teaching and methodological guidelines for trainings[3]

III.2.2.1 David Kolb's adult learning cycle



Source: prepared based on D. Kolb: Experiential Learning: Experience as the Source of Learning and Development, Prentice-Hall, Englewood Cliffs, New Jersey 1984

According to David Kolb's proposed method, an adult should go through all four phases of the proposed cycle to learn effectively.

Beginning the cycle is possible at any point. Some people prefer to first familiarize themselves with a theory (knowledge acquisition phase), then think about its usefulness (pragmatics), then apply it in practice (experience) and draw conclusions.

The didactic process of the training should be constructed in such a way that the participant can freely start learning at the stage of his or her choice.

1. Experience. Participants experience something, can observe how it works and what effects it brings. During the training, unlike in life, they give a structure to this experience. We can refer to what the participants have already experienced or create new experiences if they do not have one.
2. Reflection. The moderator allows the group to analyse what happened and why it happened by asking questions and conducting a moderated discussion. At the end he shares his observations. This is an important stage, because the group has the opportunity to "talk", the person who (possibly) made a mistake has the opportunity to self-reflect and draw conclusions for the future, as do the other members of the group who need it.
3. Generalization. The group already has its own conclusions. Now it is time to confront them with the theory. This is part of the process, which is largely the responsibility of the trainer, although here again he can use the group's activity, e.g. to write down

[3] *In its entirety from: I. Kazimierska, I. Lachowicz, L. Piotrowska, Adult Learning - Kolb's cycle, Centre for Education Development, Warsaw 2014*

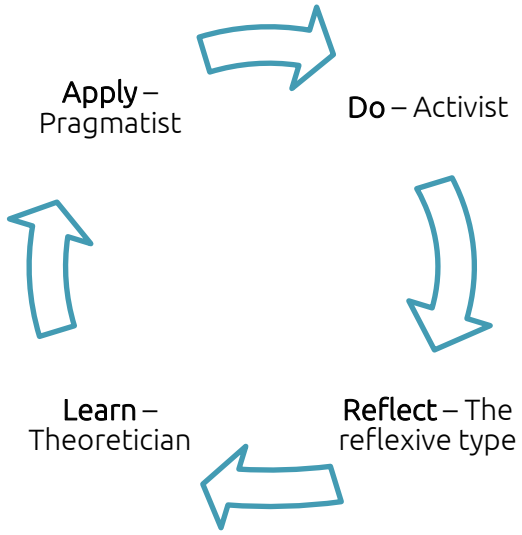
rules of conduct, important conclusions, etc. In this part of the process the trainer allows the group to get to know, recall, name, depending on the level of knowledge, the theory that underlies the explanation of the observed phenomenon.

4. Application. Now participants have the opportunity to test the acquired knowledge in practice. Under the supervision of the trainer they check if they can apply the new knowledge and make possible corrections. This is the stage at which they give themselves a lot of feedback and receive it from the trainer.

The cycle can start at any time, depending on the preferences of the learners, the purpose of the module and the stage of training. Using this form of organization of learning, the trainers consciously adjust the methods to the assumed goals and use the participants' activity. The result is not only greater motivation to learn, but also the fact that participants more often use the developed methods in practice, because they have developed them themselves. What is "ours" we are more willing to use.

III.2.2.2 D. Kolb's cycle and learning styles

Kolb's cycle and corresponding learning styles distinguished by P. Honey and A. Mumford



Source G.Petty

Activists like action

1/ They like power and control, the ability to decide. 2/ They are "actors" and not observers. 3/ They like to lead others. 4/ They like deep experience of risk-taking. 5/ Activists do not like passiveness or tasks requiring order.

When they do, they prefer: - Games and simulations; - Group work; - Problem solving; - Interviews; - Case study; - Visits; - Practical classes; - Using technical equipment; - Creative action; - Open tasks; - Making presentations; - Have a choice; - Discover the truth by themselves; - Playing roles.

Reflective people like retrospection

1/ They like to have time to think and decide. 2/ They care about details. 3/ They need time and opportunity to exchange views. 4/ They do not like very structured tasks. 5/ They do not like simulations in which they do not have time to think.

When they do, they prefer: - Demonstrations; - Self-assessment; - Watching role-playing scenes; - Learning from experience; - Repetition; - Reading; - Listening to the debate; - Evaluating and analysing films; - (Reflective) discussion; - Investigating evidence.

Theoreticians like concepts

1/ They like theories, models, concepts, systems. 2/ They prefer abstract thinking. 3/ They like inquisitive questions and intellectual criticism. 4/ They prefer a logical, systematic and objective approach. 5/ They do not like disordered, seemingly pointless activity. 6/ They do not like to delve into feelings.

They prefer to engage in: - Explaining concepts; - Using ideas for critical purposes; - Closed tasks and structured tests; - Expressing their concepts; - Discussions (theoretical); - Concept-based tasks; - Paying attention to details; - Theoretical questions such as: "what would happen if?"; - Theoretical work; - Debates;

Practitioners like to see the sense

1/ They like activities related to their future profession, i.e. practical skills.

During the activities they prefer: - Case studies and examples; - Demonstrations and practical skills exercises; - Job-related activities; - Simulations; - Project work; - Classes and practical questions; - Role-playing; - Realistic solutions to problems; - Visits; - Applying theory in practice.

Due to the specificity of adult learning, it is worth preparing classes with adults on the basis of the participation-based method. This method uses various active learning techniques - group work, brainstorming, simulation, discussion. The active techniques used in this approach ensure interaction of the content with the participants' life and work experience, combining theory and practice. The trainer/guide is a partner in the learning process in this approach.

The following assumptions are the basis of participation-based training: - you learn from situations that matter to you; - you learn in action and actively participate in activities; - you learn from your own experience by solving problems; - you learn by combining practice with theory; - you learn when the acquired knowledge is used at work or in your personal life; - you learn when there is a friendly atmosphere; - participants differ and prefer different learning styles; - you learn by interacting with other people.

The participation-based method is particularly useful in developing skills for communication, cooperation, decision-making, negotiation, problem solving and conflict. It is effective for training courses that aim at increasing creativity, innovative problem solving, changing attitudes. It serves to increase participants' involvement.

III.2.3 Training organisation and realisation

Each training, regardless of its subject matter, consists of four stages:

Stage 1 of the training:

Introductory teaching It includes classroom teaching, supported as far as appropriate by remote learning elements. It aims to prepare students to use the training effectively for their own needs, including the use of IT tools and the Internet to the extent necessary for the implementation of basic thematic training.

The organisation and scope of stage 1 of the training do not depend on the main subject of the training. It covers:

1. **Getting the learners to get to know each other and the trainers conducting the classes**, building the best possible interpersonal relations in the group; recognising the expectations of the learners and their concerns;
2. **Introducing students to the mentoring process in which they will participate**; the listener, when starting the mentoring process, should know the principles on which the mentoring process will be based and the rights and obligations of the parties. A very important element from the mentor's point of view is to determine what goals he or she wants to pursue. Before starting a mentoring programme, the learner should have predefined goals he or she wants to achieve. The learner's goals should result from the answers to the following questions:
   - What don't I know, what don't I understand, what is unclear to me?
   - What can't I do?
   - What don't I want to do, what am I afraid of as a challenge?
3. **Basic practical preparation of the student for active participation in the classes** (if required and without too deep theoretical background) in the scope of:
   - Getting to know basic messages or words in English which may appear while working with a computer or smartphone (e.g. password, download, etc.)
   - Basic operation of the smartphone and computer (switching on and off the device; providing the device with power supply; starting or closing the application);
   - Installing/uninstalling applications (these are simple installations with "a few clicks at most")
   - Setting up Internet service accounts (minimum: mail account, Google account, Zoom account) including practicing simplified registration for Internet services via Google account;
   - Using e-mail (starting a mail client, receiving mail, writing and sending a letter also with an attachment)
   - Basic skill of using a video communicator - Zoom communicator is recommended (activating the camera and microphone, joining a meeting, switching the image to your own screen and vice versa, using chat, "raising your hand", ending the session);
4. **Carrying out an initial evaluation of the training, covering in particular**: the training programme, ways of its implementation, the organisational and technical framework of the training, including the training schedule.

Stage 2 of the training: Basic education

This stage involves teaching in each thematic area and is implemented in the form of b-learning (blended learning). During the training, communication between participants

and trainers takes place through direct contact (in classroom meetings) and remotely through:

- telephone calls (smartphone),
- e-mail,
- an e-learning platform (e.g. Moodle),
- video (recommended use of Zoom communicator).

The organizational and technical assumptions of the training are as follows:

1. each participant of the training has (or is provided with) the possibility to reach the classroom meeting place;
2. each training participant during the training period has (or has ensured access to):
   - smartphone,
   - a computer or tablet with a camera and microphone,
   - the Internet;
3. Classroom meetings are intended for:
   - Supplementing the knowledge and skills acquired by the students in the framework of remote training.
   - Implementation of individual mentoring and group mentoring for students;
4. E-learning training consists of a series of thematic modules;
5. The training is carried out according to a fixed schedule for individual modules;
6. Each e-learning training module is carried out using communication:
   - Synchronous communication - each session of e-learning training/m-learning training starts and ends with a 15-20 minute meeting of training participants with the trainer in the form of a video (through a Zoom communicator); in order to effectively implement this action it is necessary here to establish a schedule for starting and ending the training with an accuracy of day/time/minute for each training module; it is advisable that the students, on their own initiative or in a way guided by the trainer, conduct video meetings, used for discussions on the subject of the course or the tasks to be solved;
   - Asynchronous - participants on their own or in groups carry out tasks of the e-learning material of a given session; it is advisable that students on their own initiative or guided by the trainer conduct a dialogue on the discussion forums of the e-learning course, write e-mails to each other, etc;
7. After each e-learning module a classroom meeting is held (see point 3).

Stage 3: Practical application of acquired knowledge and skills, gaining experiences

This stage is the implementation of the knowledge and skills acquired during stage 2 or after its completion.

The experience of the training participants (students) is gained by performing tasks such as those occurring in the surrounding reality, including the use of information and communication technologies.

Examples of tasks requiring the use of ICT by students are

1. in the field of communication, inter alia
   - Making calls on a mobile phone,
   - Use of electronic mail,
   - Use of Zoom, Facebook, WhatsApp instant messaging on devices such as: a smartphone, computer;
2. for editing documents, among others
   - Filling in and sending web forms,
   - Editing and simple formatting of a text document,
   - Performing simple calculations and graphs in a spreadsheet,
   - Creating simple presentations in a PowerPoint presentation editor,
   - Simple editing of image files (e.g. with the free IrfanView program).
   - Playing audio and video files;
3. for information acquisition, e.g:
   - Ability to search for information, e.g. about the handling a case in the office;
   - Searching on YouTube etc., e.g. for tutorials.
   - Ability to verify the reliability of information (selection of sources; comparing information on the same subject from different sources)
4. in the scope of application of available public remote services (e-services), inter alia
   - In health care (e-consultation; e-prescription, etc.),
   - Tax settlement,
   - Looking for a job or promoting one' s own services.

Stage 4: Final evaluation, post-training mentoring

The training evaluation process is conducted during the training. It consists of two parts:

1. Evaluation after each basic training module (stage 2);
2. A final evaluation covering the training.

The evaluation of each stage 2 training module apart from closed questions also includes open-ended questions allowing the student to speak freely about the training, both in terms of its organisation, course and the content taught. The evaluation of each core curriculum module ends with synthetic feedback addressed to the students about:

- information obtained from the students;
- conclusions resulting from them for the training provider;
- changes that will be introduced in the training after a given stage of evaluation.

The final evaluation of the training will be conducted in such a way that it can be a basic source of information to prepare the continuation of mentoring.

Mentoring is an integral part of the training and serves to improve its quality. It consists of two parts:

1. Individual and group mentoring, in the form of stationary meetings, carried out during the training;
2. Mentoring carried out for the students within the project after the training.

The main objectives of mentoring are:

- increasing independence and self-confidence, feeling of being treated subjectively,
- increasing responsibility for one's own professional situation and development,
- improving your qualifications,
- increasing satisfaction from achievements,
- greater involvement in the tasks, especially those that he/she has learned from the mentor,
- increasing motivation to work,
- the possibility of systematic self-reflection, supported by the "master", on one's own behaviour and development,
- acquisition/reinforcement of social competences,
- the acquisition of knowledge and competencies that closely match the specific nature of the work and the needs of the mentee
- personal and professional development,
- increasing self-confidence, ability to learn from mistakes,
- building or strengthening a positive attitude.

IV. CONCLUSION

Generations of 30, 40 and 50-year-old already know that their own development, acquisition of new knowledge, improvement of new competences, use of all opportunities to be attractive on the labor market and "up to date" with technological innovations decide about professional and personal success. are fashionable among friends and family. Virtual reality has settled in the lives of modern people for good.

The database of good IP security practices described in the chapter above can be an element of modern adult teaching and teaching methodology. It brings practical possibilities of using computer information techniques in the modern world.

The innovative method is a practical method due to the civilization need of functioning of mature people. In the social environment it has the nature of reverse resocialization due to the fluent knowledge of computer use by the young generation. Therefore, in order not to be socially excluded, mature people have the motivation and need for continuous training of skills inalienable in proper functioning. The base of good practices as a practical method prepares for safe use of IT environment resources.

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Co-funded by the
Erasmus+ Programme
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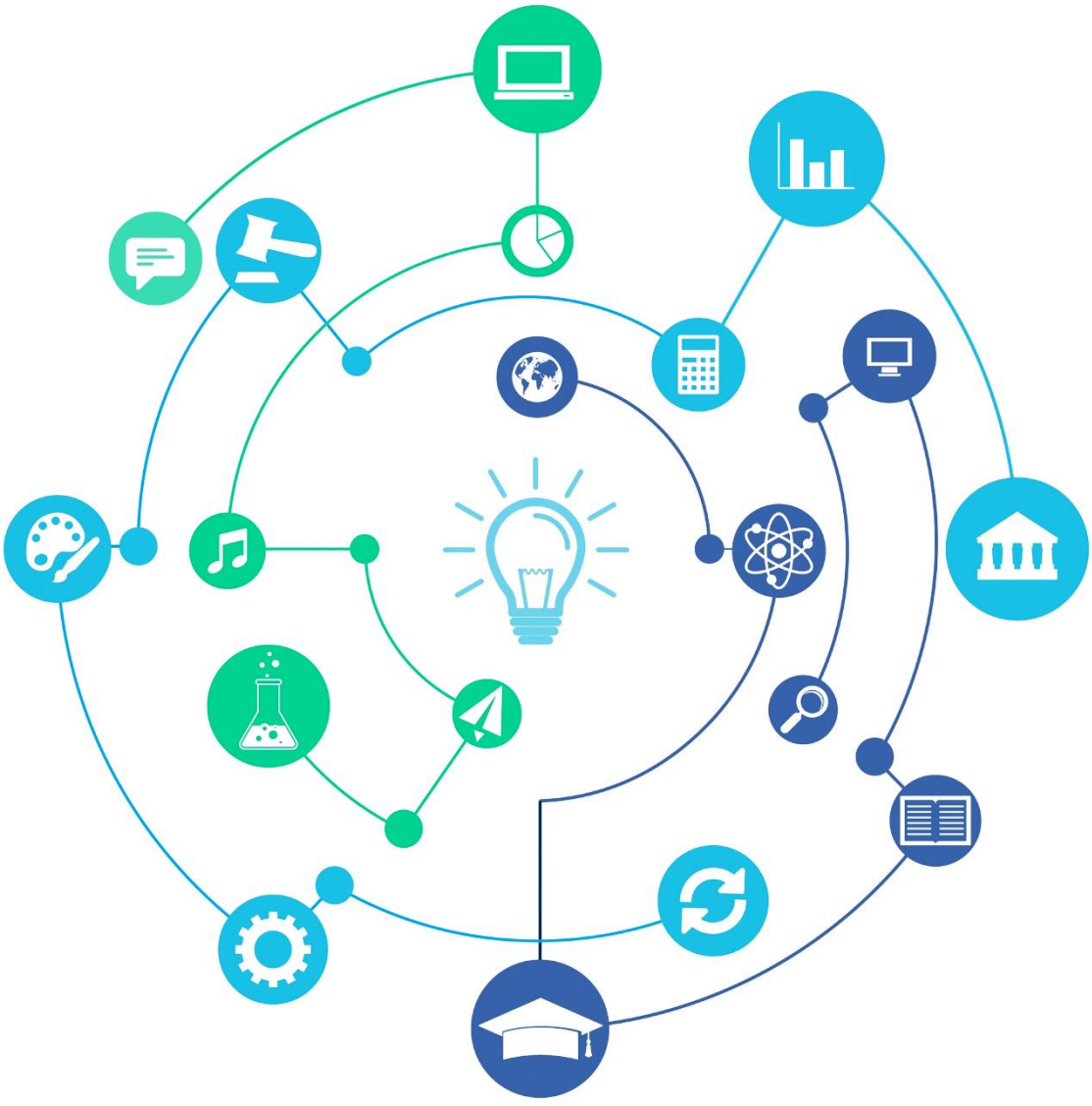
This publication was funded with support from the European Commission.



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