The Gamification
of Employment II

Methodological
Handbook

ROSTO SOLIDÁRIO
Organização Não Governamental para o Desenvolvimento

fundación aspaym castilla y león

GAMA INSTITUTE
Sănătate, Educație, Cercetare

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The Gamification of Employment II

Project description

Nowadays, the labor market is constantly changing. This is a difficult fenomena for most youngsters, who face serious problems to adapt to the demands of it, but especially to youngsters with less opportunities.

The Gamification of Employment II is the second part of a project co-financed by the European Commission on its KA2 Erasmus+ Cooperation for innovation programs. It started in 2018 with its first part and now in 2022 until 2024, this second part will take place, with a duration of two years.

The Gamification of Employment was a project where table games and the gamification methodology were used in order to give youngsters the more demanded soft skills and competences on today's labour market. In this first part of the project, innovative practices were created and used with the utilization of table games in different workshops. Also non-formal education methodologies were transferred through the creation of a handbook that spreads the gamification through youth workers and educators.

In this second part of the project, the virtual gamification will be the methodology used. The creation of a virtual innovative learning ecosystem is one of the project results. In this case, skills related to computer science and the management of new technologies will be those acquired by young people. For this, a virtual platform is created, which includes the content related to the subject and an evaluation for each level that is gamified. Also, for the spread of this methodology and contents, and in order to let youth workers and educators know more about this type of non-formal education, a virtual handbook is created.

The main objective of this project is based on creating an association for cooperation to promote transnational cooperation in the field of work with the youth population in order to develop, test and implement innovative methods to promote reskilling and upskilling skills of youth to address digital transformation, through the development of digital readiness, resilience and capabilities.

These methods are intended to improve the employability of youth by promoting their skills, abilities and values, promoting a youth prepared to face the social transformation that is coming.

Specific objectives include the creation of innovative practices in the field of youth through the development of a methodology based on virtual gamification, with which to acquire upskilling and reskilling skills that favor the acquisition of knowledge and skills to address digital transformation.

To increase the possibilities of transferring innovative methodologies among youth workers and educators, using a production of project results that they can access to understand how to develop and enhance the employability of youth,especially youth with fewer opportunities, in response to the new reality caused by the Covid-19 crisis.

Finally, to encourage the organizational development of 5 entities with diverse cultural and organizational experiences and strengthen their association for cooperation, developing and disseminating the production of results of the project created in the field of youth.

The Gamification of Employment II

Partners description

fundación aspaym castilla y león

The ASPAYM Castilla y León Foundation began operating in 2004, twelve years after ASPAYM was founded in the region of Castilla y León, Spain.

Its main objectives are to promote autonomy, equal rights and opportunities and improve the quality of life of people with physical disabilities, allowing them a meaningful integration into society. In addition, ASPAYM CyL seeks to be a leading association, providing its target users with the tools to achieve that mission. This goal is achieved through the quality of its programs and activities, research and the appropriate use of new technologies.

ASPAYM CyL has a youth department focused on activities with young people. This department is an active member of the Regional Regional Youth Council of CyL, and it is also a member of the Permanent Youth Council of the Province of Valladolid. We are also part of the network of youth information points in the province of Valladolid, which makes ASPAYM the only youth organization with the diversity level that complies with all of the above.

The youth department of ASPAYM CyL develops a multitude of activities (advocacy, non-formal education, employment), as well as years of experience and multiple awards.

Also the awareness project "Ponte en mis zapatos" (Put yourself in my shoes) is developed, whose main objective is the standardization of disability in schools, community centers, youth organizations, etc. In recent years, the organization has been committed to the use of gamification as a methodology in non-formal education activities. In this sense, ASPAYM CyL has developed board games, video games, escape rooms and manuals based on this technique to work with youngsters, always from an inclusive perspective in order to ensure equal access of young people with disabilities to all available resources.

In addition, within ASPAYM we have a project called JAVACOYA, which was born with the pretension of providing a personalized service to our clients and overcoming the daily challenges set by the market. In addition, it offers a wide range of resources, all of them oriented to optimize and profit, with complete adaptation to your needs, such as accessible website design, web updating or development of custom software.

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UEMC
Universidad Europea Miguel de Cervantes

The Miguel de Cervantes European University is a private, young and dynamic university that develops quality teaching aimed at students and based on personalized attention, small groups and internships in companies. Likewise, the research work focuses its efforts on materializing scientific, socioeconomic and environmental advances in our environment.

Founded in 2002, the UEMC currently has more than 4,500 Students, 400 Professors and Researchers and Administration and Services Staff on its Valladolid campus, and has a training offer of 17 Official Degrees, 5 Double Degrees, 5 International Degrees and 12 Official Master's Degrees and numerous Postgraduate studies. Likewise, it launches various University Extension activities (Congresses, Conferences, etc.), Complementary Training and Spanish Courses for Foreigners.

The Miguel de Cervantes European University accompanies the students in their learning process and future projects. The students have at their disposal a hands-on teaching staff with a highly specialized academic and professional profile who work with the most innovative methods to help maximize both personal and technical abilities. The teaching that the students receive generate the essential aptitudes and values to enter successfully in the labor market. They have designed your entire educational policy: human and technical resources, infrastructure and organization of the university itself, so the students can benefit from the highest educational standards.

The University is at the forefront of the development of effective personalized support, tutorials that help to reinforce abilities and boost results, education through modern information technologies and communication, as well as the offering of language classes to advance the students' studies.

From within their classrooms, the students will be able to put into practise all of the knowledge that they are acquiring, making them aware from the word go of the demands of the business world. This will allow them to develop their creativity, communication skills, and entrepreneurial spirit as some of the key elements strengthening their entry in the labor market.

Ultimately, what defines their campus and online academic offer is quality, innovation in the teaching process and orientation towards employability for each and every one of our students. They want to connect these three elements in each student to accom-pany them in their journey towards becoming competent, upstanding professionals that are full of talent.

GAMA INSTITUTE

Sănătate, Educaţie, Cercetare

The aim of **Institute for Research and Study of Quantic Consciousness - Gamma Institute** is the promotion, development, research and initiative for activities in the field of psychology, psychotherapy and mental health, in particular through training programs, workshops, psychological services and psychological assistance, counselling, psychotherapy and trainig of specialists; also, another aim is to facilitate the cooperation between romanian specialists from the fields mentioned above and other specialists from international area.

Gamma Institute has 3 departments:

Gamma Training - education department that has 2 training schools - Systemic Training School (accredited by Romanian Psychologists Association) and Self Reconstruction School (personal development for adults). In both schools, each week, participants are experiencing new instruments for personal development and training.

Gamma Clinic Psychology - health and intervention department. It has Gamma Kids (addressed to kids and parents) and Gamma Family Academy (psychological and personal development services for the entire family). In this department, there are available different psychological services, in individual sessions, couple, family or group sessions and workshops on interesting topics.

Gamma Projects & Research is the department that develops european projects and research in the field of psychology, with the aim to promote self awareness and to promote the benefits of mental state on the individual and familial life quality. Also, through this department, we make mobility and good practices exchanges for psychotherapists and students from the training school in systemic psychotherapy.

GAMA INSTITUTE
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ROSTO SOLIDÁRIO

Organização Não Governamental para o Desenvolvimento

Rosto Solidário is a Portuguese NGOD (non-governmental organization for development), established in 2007. RS work aims to foster global citizenship and solidarity by enhancing local communities' human and social development. RS core principles are civic participation, social integration, solidarity, networking and partnership.

The organisation's scope of work includes four main areas: International Development Cooperation, Global Citizenship Education, Volunteering and Family-based Social Support. Gender Equity, Human Rights and Social Inclusion are addressed as cross-cutting issues in all programs implemented. Also Rosto Solidário takes Non Formal Education approaches to foster lifelong learning opportunities following Global Citizenship Framework.

RS seek social transformation by raising critical awareness of the existing inequalities, promoting civic participation and intercultural dialogue as well as fostering solidarity and action towards common good and social change.

RS legal status of public utility as an NGO has been recognized by the Ministry of Foreign Affairs in 2008. RS is a member of the Board of the Portuguese NGOD Platform and it is represented in the Working Group on Development Education and Global Citizenship.

RS is an accredited hosting and sending organization for European Voluntary Service projects since 2011. In the last couple of years RS has been increasing its work with youth at the local level, adding to this level the perspective of the global understanding of the world as well as bringing participants the opportunity to participate in international learning mobility experiences, particularly aligned with Erasmus+ programme.

At the local level, RS is a member of Rede Social do concelho de Santa Maria da Feira (local network of 115 organizations providing social services - following National Action Plan for Inclusion guidelines). Within this network, RS has been awarded four times with a recognition of its work in fostering volunteering work and supporting local communities' development.

Still at the local level RS always works with schools raising awareness and training schools community on Human Rights and Global Citizenship topics, raising awareness and working together on advocacy initiatives within Global Campaign for Education for example at schools. Rosto Solidário have been advocating for the Right to Education at the national and international level.

ROSTO
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CEIPES:
CENTRO INTERNAZIONALE
PER LA PROMOZIONE
DELL'EDUCAZIONE
E LO SVILUPPO

CEIPES–International Centre for the Promotion of Education and Development is a global and non-profit association founded in Palermo in 2007 and with antennas in 8 other European countries.

CEIPES believes that education and development are fundamental values to achieve peace and dignity for all human beings. Each individual and community has the potential to fulfil its rights. CEIPES acts as a facilitator for activating the community, through an educational approach in order to create and transform energy and resources. This process is necessary for both individual and social development. The mission is to foster and support the sustainable development of local communities and individuals' empowerment through education and training, human rights and international cooperation.

CEIPES works at local, European and international level in synergy with more than 100 organisations, bodies and institutions with the objective of improving methodologies and technologies in the field of education, developing innovative strategies and participatory tools in the work with youth and adults, in the field of education and research through local and international cooperation.

At local level CEIPES coordinates the CEIPES Network, which is based in Sicily and counts more than 40 members among organisations, public and private bodies. The aim of the network is to promote cooperation among different stakeholders at the local level and to facilitate the access to European opportunities, such as learning mobilities and European cooperation.

At European and international level CEIPES works have a strong cooperation with more than 50 NGOs, universities and public bodies. The common pursuit by all the partners is to realise a positive change, to facilitate the social cohesion in the respect of human rights and the active participation of all individuals for their full personal and collective fulfilment.

CEIPES has 4 different units dealing with different topics:

- ICT innovation and STEAM
- Sustainability, Environment and Climate Change
- Art, Culture and Creativity
- Special Educational Needs
- Local development and social inclusion
- Human rights Education and raising awareness, advocacy and anti-discrimination
- Health, Food, Sport and Outdoor Education
- Capacity building of third sector organisations, educational institutes and public sector

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The Gamification of Employment II

Description of the target groups

fundación aspaym castilla y león

ASPAYM Castilla y León is an organization that works with the aim of improving the living conditions of people with disabilities in general and spinal cord injury in particular. Currently, we have more than 2000 members throughout the community and more than 200 workers.

Unfortunately, people with disabilities face daily access barriers to full social inclusion (architectural barriers, digital accessibility, employment barriers...). These can be analyzed and reflected in different areas of the person: physical condition, emotional well-being, interpersonal relationships, access to employment and educational and socio-cultural resources.

Education. The process of school inclusion of people with disabilities is relatively stagnant. Gradually the incorporation of students with disabilities into the mainstream education system is catching up, but nevertheless the measures have not fully incorporated young people with disabilities into the mainstream school system.

Employment. Young people with disabilities encounter many barriers to accessing the world of work: lack of opportunities, long-term health or illness, and lack of qualifications or experience.I

Health. Many young people with disabilities have chronic illnesses, which lead to chronic health problems, whether physical or psychological.

Social and family relations. Social relations and access to socio-cultural activities, leisure and free time are reduced, leading to feelings of boredom and poor personal development.

This way, and following the main proposal of this project, which works to minimize the risks of social exclusion, we include in our target group young people, between 16 and 30 years old. This group includes people with and without disabilities. Regarding people with disabilities, there are different types: the most common and widespread disability is physical. Most of them need a wheelchair to be able to move around. Other types of disabilities that we can find in our group are intellectual disability and blindness.

The **UEMC** teaches face-to-face and online degrees. As usual, the students from the face-to-face degrees have an age between 18 and 24 years, while students from the virtual degrees has an age from 18 to, in some cases, above 50, because many of these students are working and they choose online education to reconcile their work with studies. The students belong to three faculties: Health Sciences, Social Sciences and Polytechnic School. There are also a reduced percentage of students of master (10%) and students of PhD (<1%).

The students that usually participates in this kind of projects are students from the first and second year of the degrees, which use to be more open to extra-academic activities. Since the schedules of the grades are set so that they have free mornings or afternoons, the students have ample time available to participate in other types of activities.

The UEMC has been betting on educational innovation projects since the 2016-17 academic year, which makes students familiar with initiatives such as this project.

After finishing their studies, students used to have difficulties to find a job due to their lack of experience and their youth. For that reason, the UEMC places special emphasis on the work of soft skills.

In addition to educational innovation initiatives, the UEMC gives job orientation talks and has support programs for students with special needs. In addition, the UEMC has a program for monitoring the evolution of students, which can be requested by those parents or guardians who wish to be informed of the evolution of their children.

GAMA INSTITUTE
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Gamma Institute applied the tools developed on this project on the following target group:

- Young people with psychological issues such as: low level of self-esteem, anxious or depressive episodes, bullying in schools or organizational environments, difficulties in lifespan transitions (launching in independent life on youngsters, divorce, career transitions – professionalization) etc. This target group will be selected from the health department – Gamma Clinic Psychology (clients in psychotherapy and participants on Gamma Events)

- Professionals in the education and psychology field: people who are working with youngsters and with people with psychological problems, teachers and school/career counselors, systemic psychotherapists, clinical psychologists, etc.

- Future professionals in Psychology: students from Psychology (bachelor and master's degree), who are doing internships in Gamma Institute People (all ages) from Iasi city who are interested in the personal development process.

The main impact we want to achieve through the activities of this project is to help the youngsters to increase their self-esteem, to increase their confidence to express through theater their emotions and to be aware of the parts from their inner self they want to develop more and also, nowadays, to rebuild the social connection between people, because, since the pandemic context began, the people, even the youngsters are more and more isolated.

For the youth workers, psychotherapists and other non-formal education specialists, the impact will be the competencies that they will achieve to apply the methodology on their direct target group. They will learn not only how to apply the methodology, but in general,how to use theater or other innovative non formal methods in their daily work.

ROSTO SOLIDÁRIO

Organização Não Governamental para o Desenvolvimento

Global Citizenship Education it's a core area at **Rosto Solidário** as it seeks social transformation by raising critical awareness of the existing inequalities, promoting civic participation and intercultural dialogue as well as fostering solidarity and action towards common good and social change.

RS always works with schools raising awareness and training schools community on Human Rights and Global Citizenship topics, raising awareness and working together on advocacy initiatives within Global Campaign for Education.

Additionally, as a NGO for Development Rosto Solidário participated in the process of building the Sustainability Agenda at the national level by engaging public consultation events and other participatory initiatives related to SDG. After 2015, as a member of Portuguese Non-Governmental Development Organizations (NGDOs) Platform, Rosto Solidário have been engaging SDG dissemination and monitoring initiatives and in the work the organization promotes it seeks to achieve SDG indicators (at the local and national level).

So, Rosto Solidário demonstrates extensive experience in the development of environmental projects and the sustainable economy. This being another of the key competences most in demand today, RS will be the right partner to promote such competence in the project gamified learning ecosystem.

The target group includes young people, between 16 and 30 years old, with social and/or economic barriers.

CEIPES:
CENTRO INTERNAZIONALE
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E LO SVILUPPO

CEIPES – International Centre for the Promotion of Education and Development – is working in different areas of intervention, with different target groups: young people, adults, migrants, disadvantaged youth, NEET, women, educators, teachers and students, members of public institutions, unemployed.

As for the target group of this project, it is a very broad group and in all of them the need has been identified to generate innovative methodologies that enhance the employability of youth and favor training by recycling and readjustment towards digital transformation. Specifically, the project direct target include ducators, youth workers, youth leaders and/or job counselors dedicated to improving the employability of young people.

The results of this project provide an innovative methodology that will enhance the skills most valued by employers currently directly related to digital skills, resilience and innovation.

Moreover, young people in general and young people with fewer opportunities (disability, mental disorders, social and / or economic obstacles, migrants, etc.) who need to improve their employability either to access the current job market or to adapt their skills and / or knowledge to the currently demanded by employers are considered as potential target.

Lastly, professionals from social entities who also need to recycle and/or readapt their knowledge and skills related to digital transformation and resilience, and enterprises and other economic agents and/or interested public administrations in need of implementing the results of the project in their professional structures.
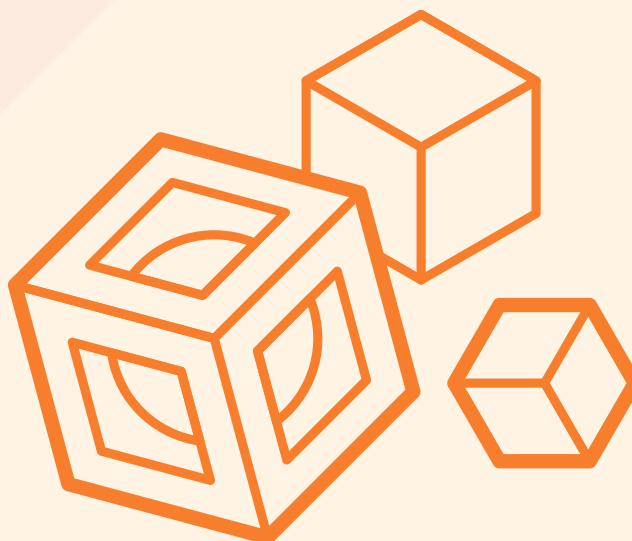
The Gamification of Employment II

Virtual gamification as a pedagological tool

What is gamification?

System-based definitions:

- "Use of game mechanics in a non-game context" (Deterding, Dixon, Khaled & Nacke, 2011).
- "Use of game elements and game design techniques in non-game environments" (Werbach, 2012).

The most used form is called Points, Badges and Leaderboards (PBL), in which gamification consists solely of a system for measuring success or failure and rewards or punishments based on the same.

Experience-Based Definitions:

- "Intentional use of game elements to achieve a playable experience in non-game tasks and contexts" (Seaborn and Fels, 2015).
- "The practice of doing game-like activities to make them more interesting or enjoyable" (Cambridge Dictionary online.2019).

These authors emphasize that the tasks to be carried out by the users have a game aspect, or at least that they are clearly identified as games, dressing the objectives with an obvious playful layer. A gamified system must contain the essence of the game, however, it does not have to have the outward appearance of a game. Being inside a system that is gamified does not necessarily imply that it is being played explicitly. In fact, you can experience gamification without being aware of it.

What is gamification?

Definitions based on user behavior:

- "Gamification is using game mechanics, perceptions and game thinking to engage people, motivate them to action, promote learning and solve problems" (Kapp, 2012).
- "Gamification is the process of taking something that already exists (a website, a corporate application, a virtual community) and integrating game mechanics to motivate participation, engage and create loyalty." (Bunchball, 2018).
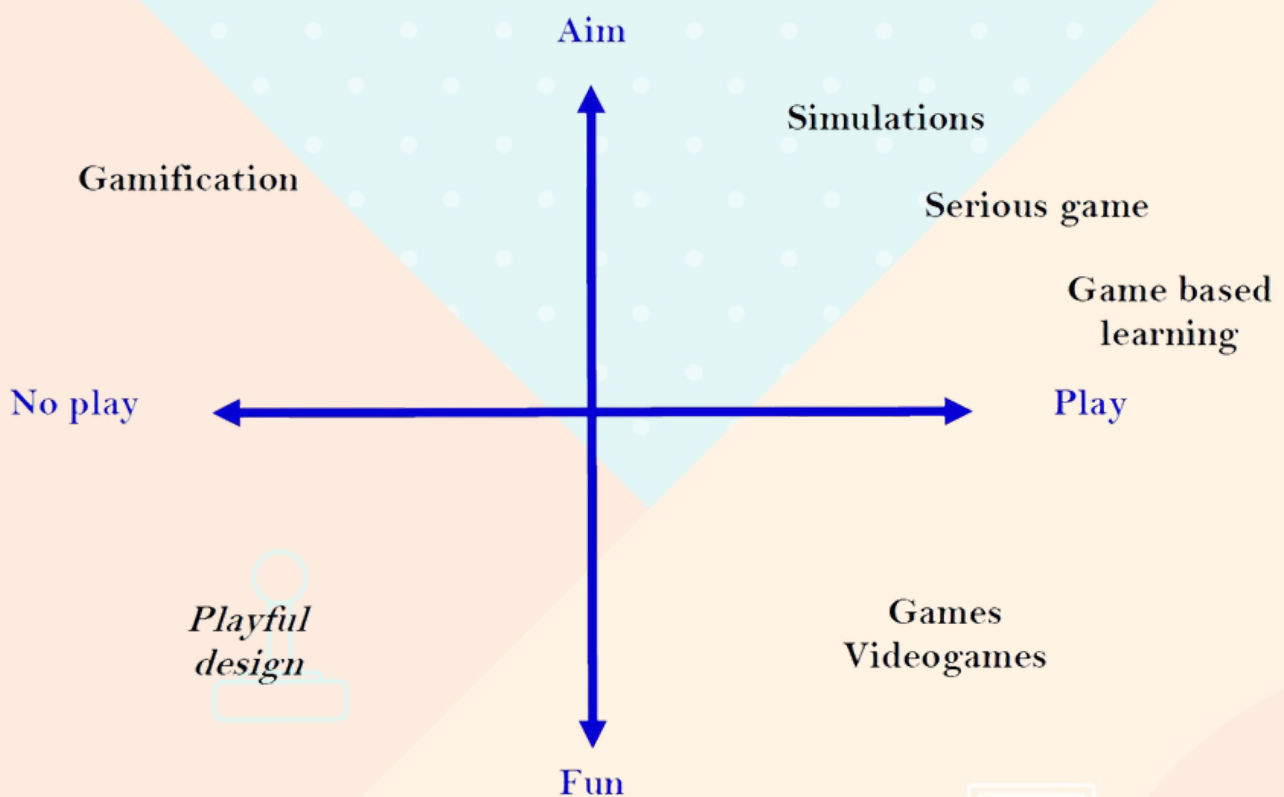
These authors speak of modifying the behavior of users to modify the motivation for which they act. If the original system does not offer them enough motivation (boring classes, tedious rehabilitation, etc.), they look for a complement that makes them change their point of view.

What is not gamification?

A number of concepts are often confused with gamification. Several of these concepts can be seen in the following image, in which we have two axes. The horizontal axis indicates whether the activity is intended to play or not to play. The vertical axis shows whether the activity has a specific objective or if it is done for fun.

Aim

Simulations

Gamification

Serious game

Game based learning

No play   Play

Playful design

Games Videogames

Fun

Simulations are recreations of real situations in a safe environment, usually for a learning purpose. Flight or driving simulators are common examples.

What is not gamification?

A **serious game** is a game that has been designed from the beginning with a purpose, which can be educational, economic, health, military, etc. The user plays and probably has fun, but playing allows him to achieve the goal for which that game was created. The Gammopoly project, led by the Gamma Institute and in which several of the partners of this consortium participated, is an example of a serious game.

Game-based learning is a teaching methodology that uses existing games that were not created for educational purposes, to promote learning or skills development. The project The gamification of employment, predecessor of the current project, is an example of application of this methodology.

Playful design seeks to modify or transform any interaction that a person has with a product or service, so that in addition to fulfilling its original purpose, it is a fun experience. There are countless examples that can be seen on youtube searching for The Fun Theory. The Piano Staircase video is one of the most exemplary.

Why is gamification useful?

Gamification is used to be implemented in activities that, in themselves, are not fun. Consequently, the main objective it pursues is to motivate users and make them have a good time or have fun doing this activity. In short, through Gamification we intend that the user is more involved in carrying out a task and dedicates more time to it. This situation is known in psychology as flow, a term initially defined by Mihaly Csikszentmihalyi (1975). Thus, flow is the mental state in which a person is so immersed and involved in something that they barely perceive the passage of time.
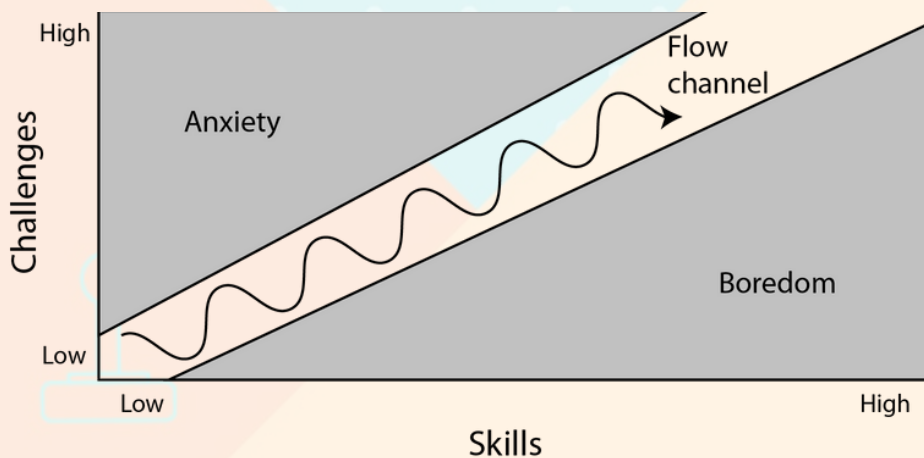
The figure shows on the horizontal axis the level of skill or talent that users have with respect to the tasks they face. The vertical axis shows the degree of difficulty of the tasks or challenges offered to the user. If the user's skill is high but the challenge is easy, the user may get bored. On the contrary, if the task is difficult and the user's level is low, the user may experience frustration. When the degree of difficulty matches the level of the user, you enter what is known as a flow channel. Gamification allows to widen the flow channel.
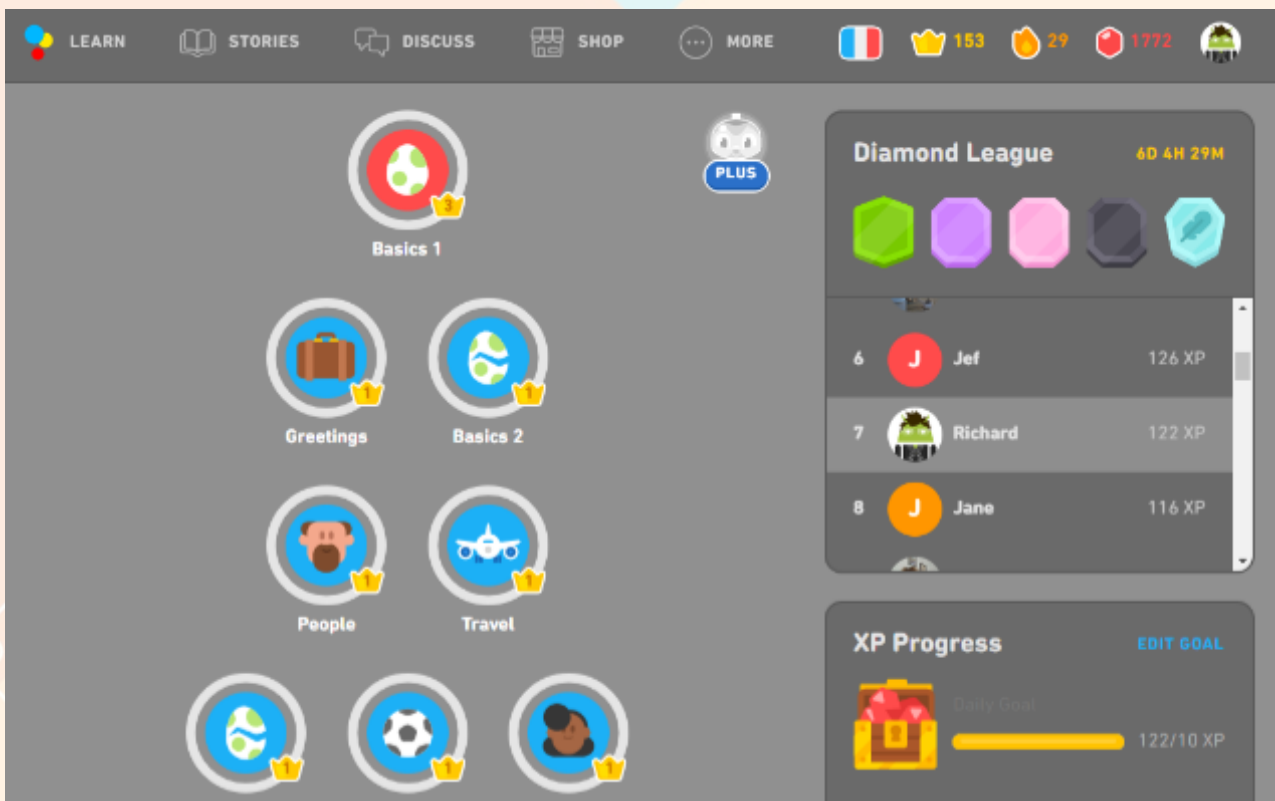
Examples of gamification

There are hundreds or thousands of examples of Gamification available on the web. Let's look at two well-known examples.

Duolingo

Duolingo has changed the way people approach learning a new language for an all-in approach at making learning a language fun. Duolingo realised that learning a whole new language can be a challenging task, so they associated language classes with game-like tasks to help users truly retain information. Gamifying the entire learning experience with points, badges, learning streaks, social functions, rewards and more, helps build momentum and motivation for users in their studies.

# Examples of gamification

Nike Run Club (NRC)

Nike understands that, for many people, the primary blocker to consistent training is a lack of motivation. Without a running partner, a personal trainer, or some other form of encouragement, it's easy for people to fall out of the habit—or even fail to get started in the first place. The NRC offers to help people overcome that motivation gap, encouraging them to continue training and reaching their goals—with GPS tracking, guided running workouts, custom coaching plans, and friendly motivation from friends and other users—while still having fun along the way.

The NRC app includes elements of gamification to promote user engagement and retention while making training enjoyable. The app constantly encourages users to log their sessions, and to take part in organized challenges with other running buddies. Many of the challenges appear as colorful full-screen modals offering prizes to participants. Each challenge is accessible for a limited time only—this urgency gives undecided users an extra nudge to commit. After the initial excitement of a new app wears off, keeping users motivated can be a challenge. Celebrating progress is an effective way to improve user engagement both during and long after initial user onboarding.

Examples of gamification

Nike consistently celebrates small wins with personalized messages congratulating users on what they've accomplished and encouraging them to keep going. The continuous encouragement boosts users' confidence in their abilities, while also raising engagement within the app. And each run unlocks new achievements, which can be shared with friends and improved over time.
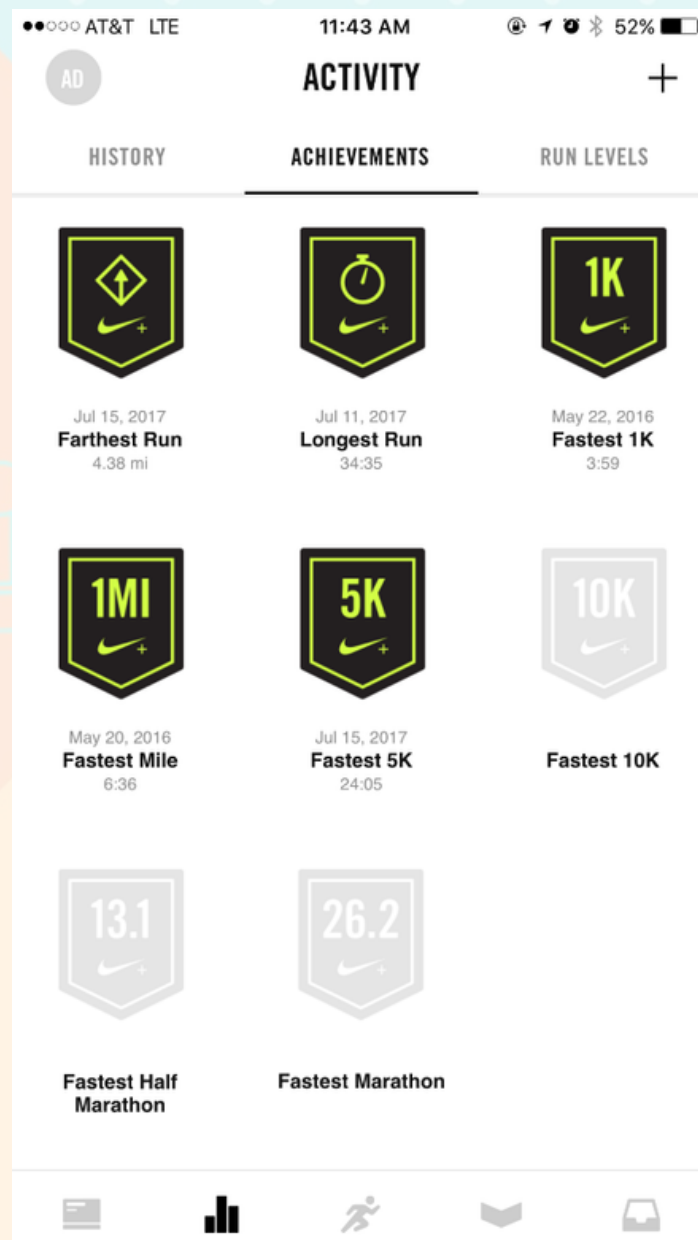
Relation between virtual gamification and youth with less opportunities

Young people with fewer opportunities are young people who, largely due to their personal situation and sometimes also due to the choices they make, face different and/or more difficult obstacles in their lives than other young people. This group usually includes (Salto, 2022):

- **Social obstacles**: young people facing discrimination (because of gender, ethnicity, religion, sexual orientation, disability, etc.), young people with limited social skills or anti-social or risky sexual behaviours, young people in a precarious situation, (ex) offenders, (ex) drug addicts, young and/or single parents, orphans, young people from broken families, etc.

Economic obstacles: young people with a low standard of living, low income, dependence on social welfare system, long-term unemployed youth, homeless young people, young people in debt or in financial problems, etc.
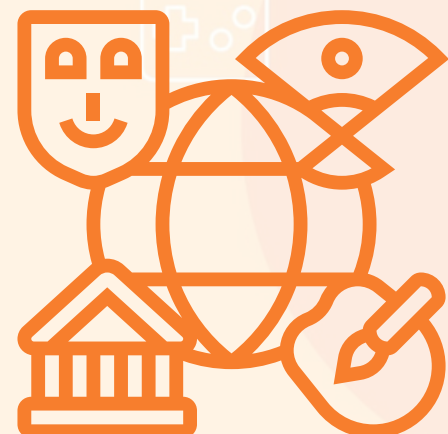
Relation between virtual gamification and youth with less opportunities

Disability: young people with mental (intellectual, cognitive, learning), physical, sensory or other disabilities.

Educational difficulties: young people with learning difficulties, early school-leavers and school dropouts, lowly or non-qualified persons, young people that didn't find their way in the school system, young people with poor school performance because of a different cultural/linguistic background, etc.

Cultural differences: young immigrants or refugees or descendants from immigrant or refugee families, young people belonging to a national or ethnic minority, young people with linguistic adaptation and cultural inclusion problems, etc.

Relation between virtual gamification and youth with less opportunities

Health problems: young people with chronic health problems, severe illnesses or psychiatric conditions, young people with mental health problems, etc.

Geographical obstacles: young people from remote, rural or hilly areas, young people living on small islands or peripheral regions, young people from urban problem zones, young people from less serviced areas (limited public transport, poor facilities, abandoned villages...), etc.

It is very common for all these groups to present learning difficulties and/or lack of motivation towards learning. For all the reasons stated in the previous sections, the Gamification of any learning process, such as the one that is going to be carried out in this project, is proposed as an interesting alternative to qualify or certify these groups in a specific competence development.
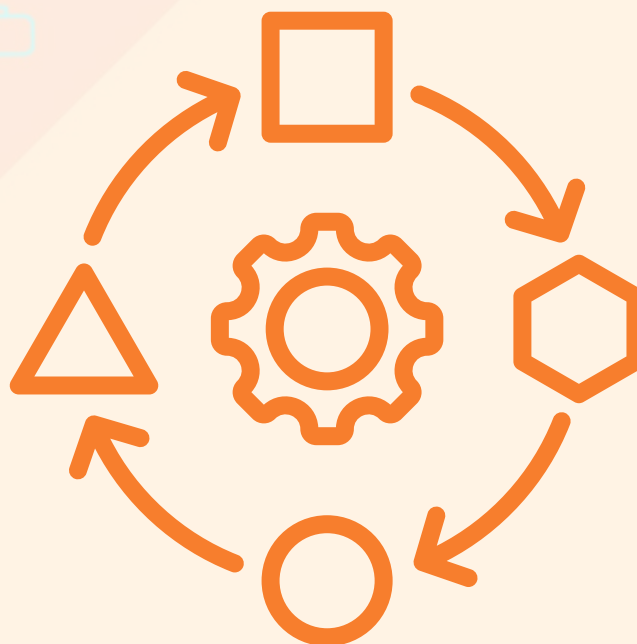
The Gamification
of Employment II

Adaptations for young people with dissabilities

Introduction

When carrying out activities with young people, accessibility criteria are often not considered. This means that many young people with disabilities are unable to participate fully in the activities because they are not designed for them, taking into account that they have different abilities to the rest.

Adaptations, according to Gomendio, "offer more opportunities to enjoy the activities carried out, improving personal and social competences and inclusion in society and the environment" (Gomendio, 2000, P138).

Taking into account the above definition and the need for adaptation of activities by people with disabilities, this project has worked throughout its process on the accessibility of all its activities, as well as the materials necessary for them, including the current document or manual.

It is important that all educators, youth workers and other professionals working in the field of facilitation take into account the essential requirements for accessibility, as this will enable them to be inclusive of all people, encouraging the full participation of society in the activities they develop.

Main axes for the adaptation of activities

There are different main axes to take into account when designing accessible activities:

Timing
Some disabilities affect people in terms of the amount of time they need to develop certain tasks or activities. Therefore, it is important to take into account that the timing of our activities must be sufficient so that any person, regardless of disability, can participate in them.

Attention to the type of disability
Each disability is different and there are different typologies. Therefore, when programming activities, we must bear in mind that we are not only adapting them to a single type of disability but that we must cover everything from visual adaptations to physical, cognitive, auditory, etc.

Material support
It is necessary that all persons participating in the activities are equipped with the necessary resources and material supports when the type of disability requires it. It is possible that people with disabilities need certain supports to develop the activities, such as canes, tablets to communicate, screen readers to access electronic elements, etc.

Main axes for the adaptation of activities

Human supports

Some people with disabilities may need more support, such as a personal assistant. Others can manage completely on their own, and others need some support from those who implement the activity. Therefore, we should expect that we may need to increase the number of professionals per ratio and/or have professionals specialised in personal assistance.

Accessibility in the digital environment

The Gamification of Employment II project is based on a virtual training ecosystem, which is why it is important to focus not only on adapting the activities, but also on web accessibility, given that each training module must be accessible to any person, without disability being an impediment to participation.

For an adequate access to all the information found in the online activities, web accessibility professionals will develop such contents, so that when accessing the project platform, downloading the documentation and participating in the online activities, everyone with a disability can access and participate fully. In this sense, accessibility criteria have been taken into account based on the different types of disabilities that can be found.

Guidance by type of disability

Physical disability

Some people need material elements to better manage in the world of technology, such as specialised mice, adapted keyboards, or the use of different technologies such as eye tracking.

Visual impairment

There are different types of visual impairments, such as blindness, color blindness, or low vision. To adapt web content to these needs, screen readers are used in the case of people with blindness or Braille lines as keyboards.

The use of colors as a method of conveying information should also be avoided, as people with colour blindness will not be able to understand the message.

Finally, it should be noted that the use of heavy fonts makes reading difficult for people with low vision or dyslexia. Another element for the adaptation of certain materials is alternative text. Images should have an alternative text that indicates the information in the image so that a reader can interpret it.

Guidance by type of disability

Hearing impairment

It is necessary that the contents that are recorded in audio or video, have at the same time a description in sign language or subtitles.

Intellectual disability

The information transmitted must be in a logical order. In addition, the use of illustrations or pictograms is of great help for people with intellectual disabilities, since it facilitates the comprehension of the information.

We should also avoid elements that easily distract attention, as people with attention deficits may miss important information.

For people with memory impairment, it is important for the information to be clear, as this makes it easier to remember it.

Mental disability

Avoiding poorly structured information and sensitive elements, such as flashing images or loud sounds, is of great importance. Also, the use of easy reading and the avoidance of distracting elements make it easier for people with both mental and intellectual disabilities to understand the content.

Guidance by type of disability

In common with any person with a disability and to facilitate web accessibility, clear and well-structured information should be provided in our materials. This means, for example, that when navigating through a document or following a presentation, there is a logical overall order, clarity and differentiation between headings, subheadings and information. In this way, screen readers and other digital accessibility elements can read the information to the user in an orderly fashion.
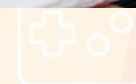
Phases in the adaptation of activities

Methodological adaptations
- Language appropriateness
- Motivational strategies
- Diversity as a basic element of our activities
- Active participation
- Inclusive criteria
- Encouraging self-learning

Adaptations to the environment and equipment

Materials

The material should be mobility-enhancing and adapted to the needs of each participant. It should also be motivating.

Environment

The facilities must be free of architectural barriers, obstacles and slopes. They must have well-defined spaces.

Adaptation of the activity
- Activities should have various degrees of difficulty and levels of execution in order to be inclusive of all types of participants.
- Different activities for the same content.
- Propose activities of free choice.
- Collect the type of activities to be carried out by people with disabilities.
- Start from their needs, tastes and motivations.
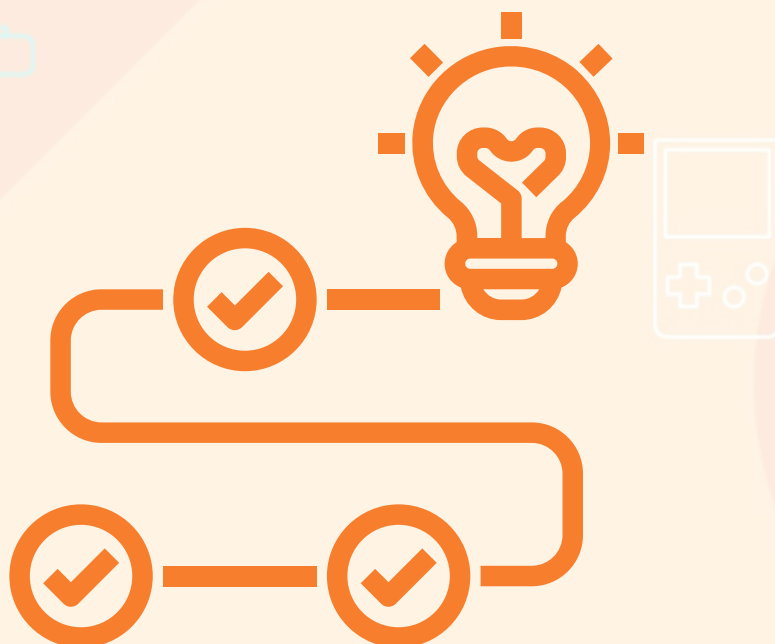- Include activities that pose a certain challenge that can be taken on.

The Gamification
of Employment II

Methodological conclusions

Innovative virtual learning ecosystem Feedback

The GOE II virtual learning ecosystem consisted of 5 training pathways and each of them developed a strategic competence to face the digital transformation and strengthen the employability of the target group with 3 levels of difficulty:

1. Digital capabilities
 2. Management and analysis of large volumes of data: Big Data
3. Resilience
4. Environmental and Sustainable Economy
5. Digital Communication

Each course consists of three levels of specialisation (basic level, intermediate level, and expert level) through a gamified narrative. The users were able to develop the training experience going through all the levels of specialization or had the possibility to carry out a previous test that indicated their state of knowledge and recommended their level depending on the result obtained. Before entering a new level, the user completed the different training resources and demonstrated the acquisition of that knowledge. Once the itinerary was completed, the user obtained a certification that guarantees the knowledge achieved.

The virtual learning ecosystem was tested before its final version within each of the entities of this consortium with at least 20 young people from the target group in each of them.

In this way, the GOEII virtual learning ecosystem was tested by 104 youngsters between 16 and 30 years old, most of them students from high schools and universities. In terms of provenience countries, 44 participants were from Spain, 20 from Italy, 20 from Portugal and 20 from Romania.

Once they have completed the training pathway, participants had the possibility of filling in a satisfaction questionnaire. The questionnaire with the response to each of the items is shown below.

The questionnaire started with a welcome message:

"Congratulations, you are now an official GoE2 member! Tell us what you think of the platform so that we can improve it!"

Each of the following items was rated from 1 (totally dissatisfied) to 6 (totally satisfied).
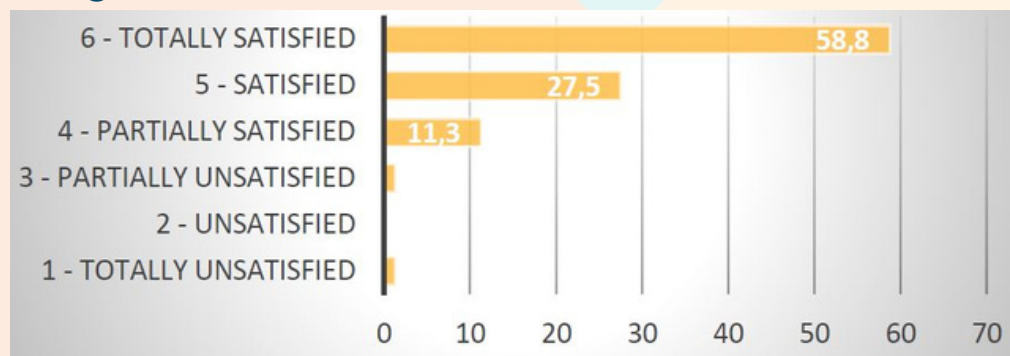
General satisfaction about the course

The participants, overall, were very satisfied with the course, with the gamified elements (scoring, ranking, levels, badges...) and with the narrative as the graphics bellow can prove:
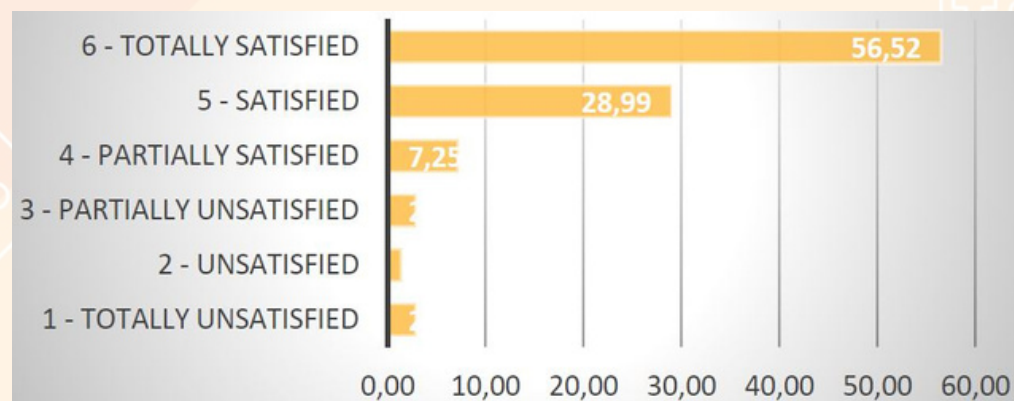
a) General satisfaction about the course

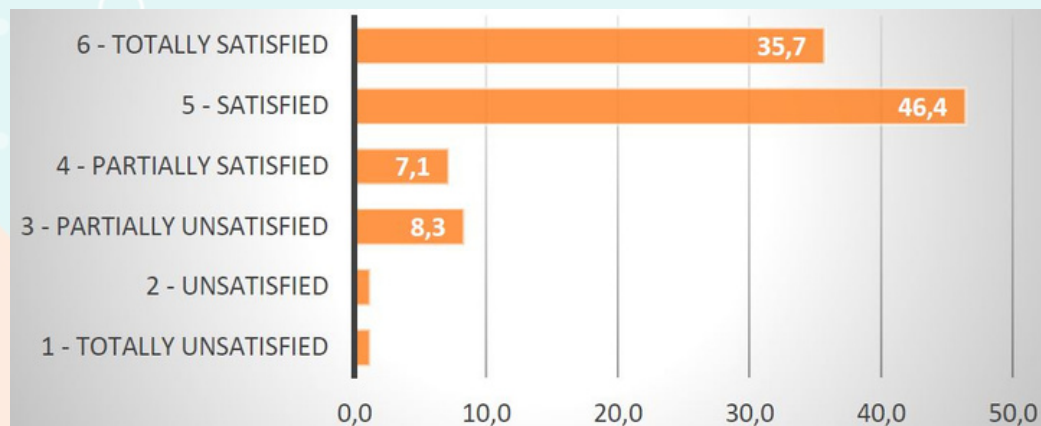b) Satisfaction with gamified elements (scoring, ranking, levels, badges...)?
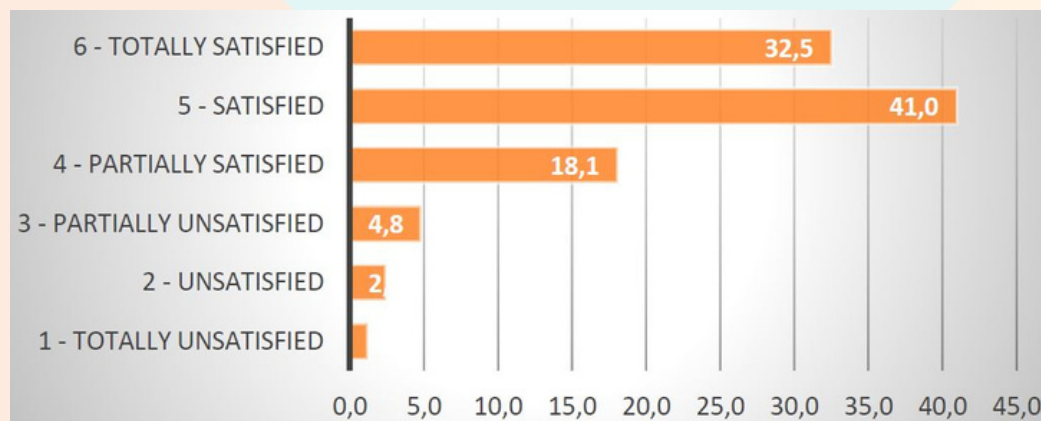

c) General satisfaction with the narrative
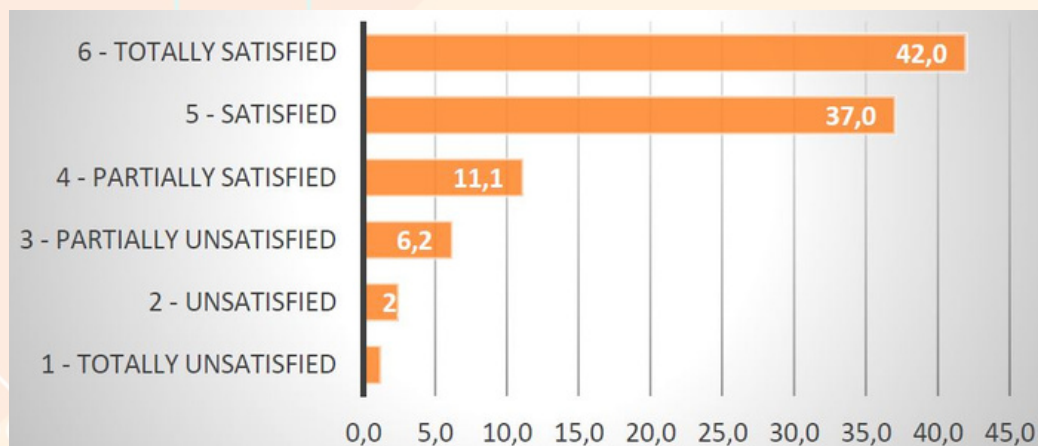
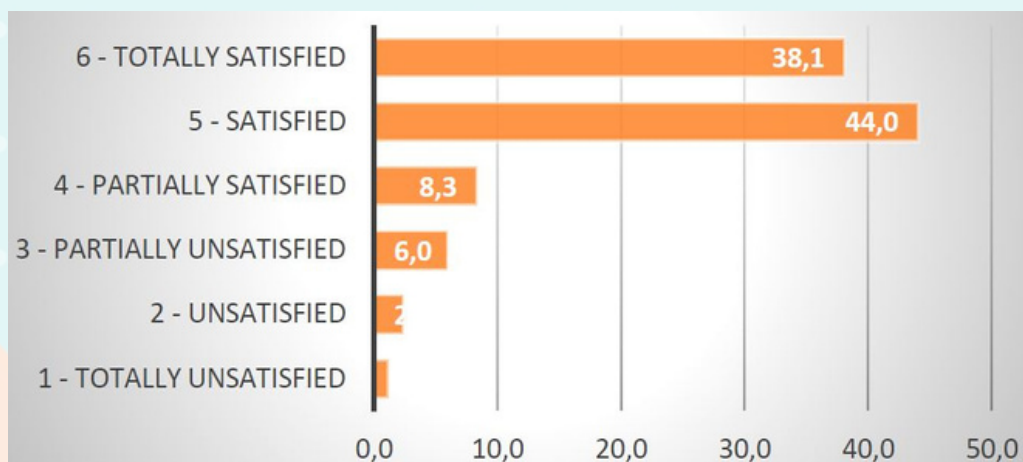## Satisfaction with the module of Digital Skills

a) Presentations

	%
6 - TOTALLY SATISFIED	35,7
5 - SATISFIED	46,4
4 - PARTIALLY SATISFIED	7,1
3 - PARTIALLY UNSATISFIED	8,3
2 - UNSATISFIED	
1 - TOTALLY UNSATISFIED	

b) Pdf and theoretical content

	%
6 - TOTALLY SATISFIED	32,5
5 - SATISFIED	41,0
4 - PARTIALLY SATISFIED	18,1
3 - PARTIALLY UNSATISFIED	4,8
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

c) Activities

	%
6 - TOTALLY SATISFIED	42,0
5 - SATISFIED	37,0
4 - PARTIALLY SATISFIED	11,1
3 - PARTIALLY UNSATISFIED	6,2
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

d) Final test

Rating	Value
6 - TOTALLY SATISFIED	38,1
5 - SATISFIED	44,0
4 - PARTIALLY SATISFIED	8,3
3 - PARTIALLY UNSATISFIED	6,0
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

e) General satisfaction

Rating	Value
6 - TOTALLY SATISFIED	36,9
5 - SATISFIED	39,3
4 - PARTIALLY SATISFIED	13,1
3 - PARTIALLY UNSATISFIED	7,1
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

Satisfaction with the module of Big Data

a) Presentations

6 - TOTALLY SATISFIED	34,5
5 - SATISFIED	36,9
4 - PARTIALLY SATISFIED	19,0
3 - PARTIALLY UNSATISFIED	4,8
2 - UNSATISFIED	3,6
1 - TOTALLY UNSATISFIED	

b) Pdf and theoretical content

6 - TOTALLY SATISFIED	32,1
5 - SATISFIED	32,1
4 - PARTIALLY SATISFIED	21,4
3 - PARTIALLY UNSATISFIED	10,7
2 - UNSATISFIED	3,6
1 - TOTALLY UNSATISFIED	

c) Activities

6 - TOTALLY SATISFIED	37,3
5 - SATISFIED	33,7
4 - PARTIALLY SATISFIED	16,9
3 - PARTIALLY UNSATISFIED	8,4
2 - UNSATISFIED	3,6
1 - TOTALLY UNSATISFIED	

d) Final test

6 - TOTALLY SATISFIED	33,3
5 - SATISFIED	39,1
4 - PARTIALLY SATISFIED	13,8
3 - PARTIALLY UNSATISFIED	9,2
2 - UNSATISFIED	4,6
1 - TOTALLY UNSATISFIED	

e) General satisfaction

6 - TOTALLY SATISFIED	35,7
5 - SATISFIED	33,3
4 - PARTIALLY SATISFIED	13,1
3 - PARTIALLY UNSATISFIED	13,1
2 - UNSATISFIED	3,6
1 - TOTALLY UNSATISFIED	

Satisfaction with the module of Resilience

a) Presentations

6 - TOTALLY SATISFIED	43,4
5 - SATISFIED	34,9
4 - PARTIALLY SATISFIED	10,8
3 - PARTIALLY UNSATISFIED	8,4
2 - UNSATISFIED	
1 - TOTALLY UNSATISFIED	

Axis: 0,0 10,0 20,0 30,0 40,0 50,0

b) Pdf and theoretical content

6 - TOTALLY SATISFIED	39,3
5 - SATISFIED	32,1
4 - PARTIALLY SATISFIED	17,9
3 - PARTIALLY UNSATISFIED	6,0
2 - UNSATISFIED	3,
1 - TOTALLY UNSATISFIED	

Axis: 0,0 10,0 20,0 30,0 40,0 50,0

c) Activities

6 - TOTALLY SATISFIED	47,6
5 - SATISFIED	31,0
4 - PARTIALLY SATISFIED	10,7
3 - PARTIALLY UNSATISFIED	7,1
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

Axis: 0,0 10,0 20,0 30,0 40,0 50,0

d) Final test

Rating	Value
6 - TOTALLY SATISFIED	40,5
5 - SATISFIED	35,7
4 - PARTIALLY SATISFIED	13,1
3 - PARTIALLY UNSATISFIED	7,1
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

e) General satisfaction

Rating	Value
6 - TOTALLY SATISFIED	43,0
5 - SATISFIED	33,7
4 - PARTIALLY SATISFIED	11,6
3 - PARTIALLY UNSATISFIED	9,3
2 - UNSATISFIED	
1 - TOTALLY UNSATISFIED	

Satisfaction with the module of Digital Communication

a) Presentations

Satisfaction level	Value
6 - TOTALLY SATISFIED	41,5
5 - SATISFIED	32,9
4 - PARTIALLY SATISFIED	15,9
3 - PARTIALLY UNSATISFIED	7,3
2 - UNSATISFIED	
1 - TOTALLY UNSATISFIED	

b) Pdf and theoretical content

Satisfaction level	Value
6 - TOTALLY SATISFIED	38,1
5 - SATISFIED	33,3
4 - PARTIALLY SATISFIED	19,0
3 - PARTIALLY UNSATISFIED	6,0
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

c) Activities

Satisfaction level	Value
6 - TOTALLY SATISFIED	39,3
5 - SATISFIED	34,5
4 - PARTIALLY SATISFIED	10,7
3 - PARTIALLY UNSATISFIED	10,7
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	2

d) Final test

6 - TOTALLY SATISFIED	37,3
5 - SATISFIED	36,1
4 - PARTIALLY SATISFIED	15,7
3 - PARTIALLY UNSATISFIED	7,2
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

0,0 5,0 10,0 15,0 20,0 25,0 30,0 35,0 40,0

e) General satisfaction

6 - TOTALLY SATISFIED	34,5
5 - SATISFIED	36,9
4 - PARTIALLY SATISFIED	15,5
3 - PARTIALLY UNSATISFIED	9,5
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

0,0 5,0 10,0 15,0 20,0 25,0 30,0 35,0 40,0

Satisfaction with the module of Environmental and sustainable economy

a) Presentations

Rating	Value
6 - TOTALLY SATISFIED	36,9
5 - SATISFIED	46,4
4 - PARTIALLY SATISFIED	8,3
3 - PARTIALLY UNSATISFIED	6,0
2 - UNSATISFIED	
1 - TOTALLY UNSATISFIED	

b) Pdf and theoretical content

Rating	Value
6 - TOTALLY SATISFIED	39,8
5 - SATISFIED	32,5
4 - PARTIALLY SATISFIED	20,5
3 - PARTIALLY UNSATISFIED	4,8
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

c) Activities

Rating	Value
6 - TOTALLY SATISFIED	44,0
5 - SATISFIED	35,7
4 - PARTIALLY SATISFIED	11,9
3 - PARTIALLY UNSATISFIED	6,0
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

d) Final test

6 - TOTALLY SATISFIED	40,5
5 - SATISFIED	38,1
4 - PARTIALLY SATISFIED	11,9
3 - PARTIALLY UNSATISFIED	6,0
2 - UNSATISFIED	2
1 - TOTALLY UNSATISFIED	

e) General satisfaction

6 - TOTALLY SATISFIED	36,9
5 - SATISFIED	38,1
4 - PARTIALLY SATISFIED	15,5
3 - PARTIALLY UNSATISFIED	8,3
2 - UNSATISFIED	
1 - TOTALLY UNSATISFIED	

Key words that come to mind that reflect the employability-related knowledge acquired through this course

Participants were asked to write words associated with the learning path and the result is presented on this word cloud.

As we can see, besides words related to the contents of the 5 different modules, participants highlight the learning and knowledge acquired and the creativity and innovation of the course.

Considerations about the gamification of the content

In general, participants were very pleased with the gamification content, considering it fun, enjoyable and a dynamic and interesting way to learn.
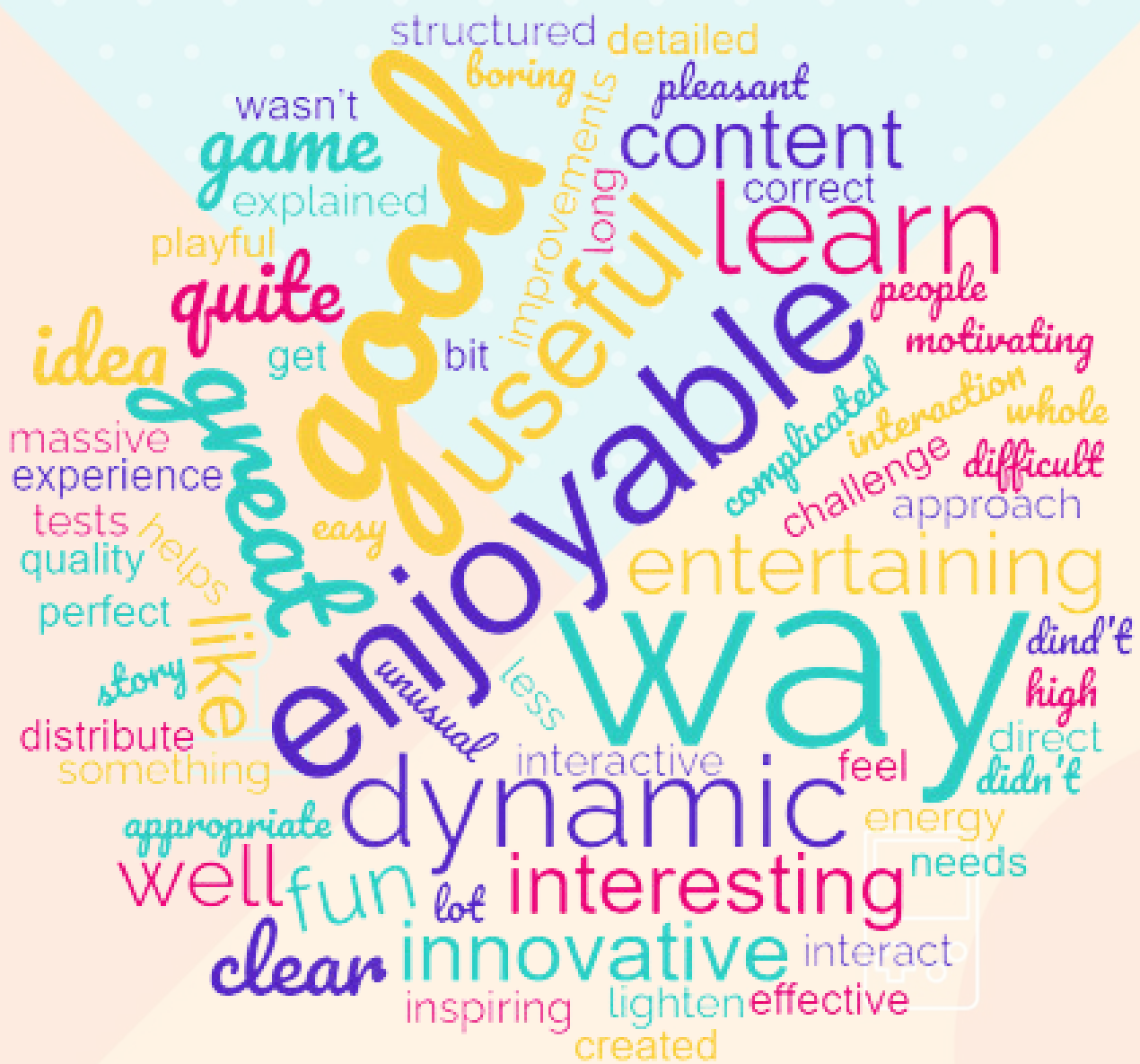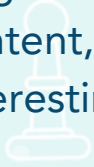
Other ideas and comments about the platform, course, and the modules

Participants were asked to contribute to the improvement of the course with some practical suggestions and feedback about their experience.

About the platform

The participants gave some feedback about the platform used.

- They considered that it was easy to do the registration and to interact with the platform and, in general, the platform is very well designed.

- However, they also detected some problems, namely the fact that the platform is slow, especially in the ppt presentations, crashes very often and had some bugs. Also, the accessibility of the website from mobile should be improved since it was impossible to access.

- Some participants had some problems with PowerPoint (which blocked often) and could not move forward to other levels and for other participants the final feedback form did not appear. One suggestion given was that the "presentation" part you could either skip or fast forward the slides faster.

- Another suggestion was to add an audio section, to make the platform as accessible as possible for people with severe visual impairments.

About the course

- Some participants though the course was perfect, and they wouldn't change anything on it. They considered the course to be quite comprehensive and suitable for all levels. They also enjoyed the badges, the storytelling and gamification elements.

- However, some other participants considered the course to long and dense and little interactive. Although the themes were very interesting and pertinent, they think it is lacking some dynamism in the course. In this sense, they suggested that less text and more interactivity and gamification elements would improve the whole experience. Another suggestion was to include videos in the course, so it could be more appealing and interactive.

About the modules

- Regarding the modules, generally participants considered it useful and relatively easy, except the Big Data module, that was quite more difficult that the others. In fact, most participants considered Big Data module much longer and difficult than the others and sometimes users did not understand it.

Participants made some important suggestions to improve modules contents and interactivity:

- The theoretical part is too long, young people have a shorter span of attention and may not be engaged in the completion of the whole theoretical part. It should probably be more compact, with less written text and more videos, images, graphics, and games.

- To change the order of the materials: first the ppt and then the pdf (for the ones that want to experiment more content).

- To include interactive activities on the presentations and have problem solving feature. Also, to add some short videos to teach the contents instead of the pdf ones.

- To add the buying booklets or kindle, epub version and maybe videos because technical areas are very hard to teach on paper. Especially with editing, coding etc.

- In some exercises it was not clear what they had to do, so it could be important to clarify the instructions.

- In exercises that ask to complete sentences, prefer to use the option "drag and drop", because sometimes just one letter to be incorrect, for the exercise to be wrong, although the answer is right.

- In some modules the evaluation seemed inadequate and there was no feedback on the answers it gave.

Conclusions

Analysing the results obtained, we can consider that the participants were satisfied with the training itinerary, since more than 85% of them expressed a general satisfaction about the course.

The gamification was probably the most appreciated aspect, since 97,6% of the participants rated this aspect equal or above level 4. Also, the narrative was rated very positively (93% Equal or above level 4).

The presentations, the pdfs and theoretical contents, the activities and the final test were equally well valued in the 5 modules. The overall review of the five itineraries was between average and highly satisfactory, with no course to significantly stand among the others for negative response.

The theoretical materials were overall appreciated, despite more than one participant thought that the theoretical part is too long and could be more effective if it was shorter or, at least, a less formal educational tool.

Among the key words that stand out the most and which are not implicit in the subject matter of each of the blocks are: learning, knowledge, creativity, and innovation.

Regarding the gamification of the contents, the aspects most highlighted by the participants were: fun, enjoyable, dynamic, and interesting.

Open comments tended to suggest a larger amount of gamification to guarantee the positivity of the experience; in several cases bugs and crashes of the platform were mentioned, and during the testing there were often issues in accessing the platform from mobile devices.
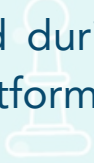
The aspect that can be taken into consideration for future platforms of e-learning is to calibrate the course on the target group interests, since there were some modules considered more difficult than others.

Considering the evaluation and the comments received in the testing period, the aim now is to improve the course.

The Gamification of Employment II

Testimonials

Testimonials from platform users

Spain

Portugal

Testimonials from platform users

Italy

Romania

# The Gamification of Employment II

Recommendations

Introduction

In today's rapidly evolving job market, youth face numerous challenges and uncertainties when it comes to securing employment opportunities. With the advent of technology, the digital age has transformed the employment landscape, demanding a new set of skills and competencies. To navigate this dynamic environment successfully, young individuals need to develop a diverse skill set that includes resilience, digital communication, communication skills, and big data. This comprehensive training is essential not only to bolster their employability but also to prepare them for the future of work.

This essay explores the importance of providing training in resilience, digital communication, communication skills, and big data to enhance the employment opportunities of today's youth. We will delve into each of these aspects and discuss how they contribute to equipping young individuals with the tools they need to succeed in the job market.
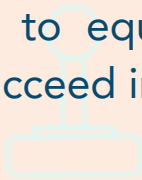
① Resilience: The Foundation of Success

Understanding Resilience

Resilience is the ability to adapt and bounce back from adversity, stress, or challenges. In the context of employment, it means the capacity to withstand setbacks, learn from failures, and continue pursuing one's career goals. For youth, who often face uncertainties in the job market, resilience is a vital trait that can be cultivated through training.

Why Resilience Matters

a) Overcoming Setbacks: The job market is competitive and ever-changing. Many young individuals face rejections and obstacles in their job searches. Resilience enables them to learn from these experiences, adapt, and persist in their efforts.

b) Emotional Well-being: Resilience training also contributes to better mental health. Coping with stress and disappointment is crucial for maintaining emotional well-being, which is essential for long-term career success.

c) Adaptability: Resilient individuals are more adaptable to changing circumstances. In a world where industries evolve and new technologies emerge, adaptability is a highly sought-after trait by employers.

Training in Resilience

Training in resilience involves developing self-awareness, emotional regulation, problem-solving skills, and a growth mindset. Programs that emphasize stress management, emotional intelligence, and coping strategies can help young individuals build resilience.

(2) Digital Communication: Navigating the Digital World

The Digital Age

The advent of the digital age has revolutionized how we communicate, work, and interact. To succeed in this era, youth must be proficient in digital communication.

Importance of Digital Communication Skills

a) Workplace Communication: Today's workplaces heavily rely on digital tools for communication. Email, messaging apps, and video conferencing are commonplace. Proficiency in these tools is essential for effective communication within the workplace.

b) Global Connectivity: The internet has enabled global connectivity, and youth must be equipped to interact with individuals from diverse backgrounds and cultures. Understanding digital communication etiquette is vital in this context.

c) Remote Work: The COVID-19 pandemic accelerated the adoption of remote work. Even as restrictions ease, many companies continue to offer remote work options. Digital communication skills are indispensable for remote work productivity.

Training in Digital Communication

Youth should receive training in digital communication to harness the potential of online tools effectively. This training may include mastering email etiquette, video conferencing skills, online collaboration platforms, and social media professionalism.

(3) Communication Skills: The Art of Expression

Effective Communication

Effective communication is a cornerstone of personal and professional success. Strong communication skills are essential for building relationships, conveying ideas, and problem-solving. Youth who excel in communication stand out in the job market.

Professional Communication

a) Job Interviews: A young person's ability to articulate their skills and experiences in an interview can greatly influence their employment opportunities. Strong communication skills increase their chances of making a positive impression on prospective employers.

b) Team Collaboration: In a workplace, effective communication is crucial for collaboration. Youth with good communication skills can work well in teams, which is a valuable asset in many industries.

c) Leadership Development: Effective communication is a hallmark of leadership. Young individuals who aspire to lead must be skilled in communicating their vision, motivating teams, and resolving conflicts.

Training in Communication Skills

Communication skills can be developed through training and practice. Courses in public speaking, active listening, conflict resolution, and negotiation can enhance a young person's ability to express themselves clearly and persuasively.

Big Data: Navigating the Information Age

(4)

The Rise of Big Data

The information age has ushered in an era of big data. The ability to collect, analyze, and interpret vast amounts of data is a critical skill for youth entering the job market.

Importance of Big Data Skills

a) Data-Driven Decision-Making: In various industries, data is used to inform decisions. Businesses, governments, and organizations rely on data to make strategic choices. Proficiency in big data allows youth to contribute to data-driven decision-making processes.

b) Market Research: Understanding consumer behavior and market trends is essential for businesses. Big data analysis can provide valuable insights that drive marketing and product development strategies.

c) Competitive Advantage: Companies that harness big data gain a competitive edge. Youth trained in big data can help their employers stay ahead of the curve and adapt to changing market conditions.

Training in Big Data

Youth can acquire big data skills through courses in data analysis, statistical analysis, data visualization, and data mining. These skills are highly transferable and applicable across various industries.

5 The Intersection of Skills: Creating Well-Rounded Professionals

Synergy of Skills

While each of the skills discussed - resilience, digital communication, communication skills, and big data - is valuable in its own right, they are most effective when combined. The synergy of these skills creates well-rounded professionals who are poised for success.

A Holistic Approach to Training

Youth training programs should adopt a holistic approach, incorporating elements of each skill set. For instance, teaching digital communication skills can also encompass aspects of effective communication. Moreover, building resilience is closely linked to communication skills, as individuals must effectively express their needs and emotions.

Real-World Application

To emphasize the practical application of these skills, youth should engage in real-world projects and scenarios. For example, a training program might involve a project where students must use digital communication tools, apply data analysis to a real-world problem, and present their findings using strong communication skills.

(6) Preparing Youth for the Future of Work

The Future of Work

The job market is evolving, and the skills demanded by employers are changing. Preparing youth for the future of work is essential to ensure they are not left behind in this dynamic landscape.

Adaptability and Lifelong Learning

The skills of resilience, digital communication, communication skills, and big data are not static. They should be viewed as dynamic, evolving attributes that require continuous development. Youth must be prepared to embrace lifelong learning and adapt their skills to meet the demands of the ever-changing job market.

Technological Advancements

As technology continues to advance, youth who are trained in digital communication and big data analysis are better equipped to adapt to new tools and platforms. Their adaptability can be a significant advantage in an age where technological advancements are rapid and disruptive.

⑦ Closing the Skills Gap

The Skills Gap Challenge

One of the pressing challenges in the job market is the skills gap - the disconnect between the skills employers.

The Gamification of Employment II

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- Salvador, J. F., Fernández, J. G., Villalobos, J. G., Álvarez, A. G., Restrepo, E. G., Casaubón, C. J., Normand, L. M., & Zúnica, R. R. (2011). Acc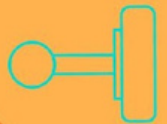esibilidad, TIC Y educación. Ministerio de Educación.