

# ESCAPE4SDGS



# TRAINING KIT



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## 1. Introduction

Welcome to the Escape4SDGs Training KIT, a comprehensive guide on how to create educational escape games to raise awareness about the Sustainable Development Goals (SDGs) among young people. This KIT aims to provide youth practitioners with the necessary knowledge, skills, and tools to create their own thematic educational escape games, which will help them engage youth in learning about the SDGs in an entertaining and interactive way.

In the context of the Escape4SDGs project, this Training KIT serves as a practical guide for youth practitioners who want to learn how to create educational escape games about the SDGs. It includes a range of materials, such as theoretical information, practical tips, templates, and examples of successful escape games, which will help practitioners to design and implement their own educational escape games.

Educational escape games are an innovative way to engage young people in learning about the SDGs. They allow participants to discover things on their own, understand complex issues, and develop critical thinking, problem-solving, and teamwork skills. Escape games create an immersive and fun learning environment that motivates young people to participate actively and learn in a more effective way.

Moreover, by creating and piloting their own educational escape games, youth practitioners can promote active citizenship, social engagement, and raise awareness about the importance of the SDGs among young people. This Training KIT provides a valuable opportunity for youth practitioners to develop their capacity and knowledge in creating educational escape games, which will enable them to engage more effectively with young people and make a positive impact on society.

In this Training KIT, you will find everything you need to know about how to create an educational escape game about the SDGs. The KIT includes information on the importance of the SDGs, the principles of game design, how to develop a narrative, how to create puzzles, and how to facilitate a successful escape game. Additionally,

you will find examples of successful escape games designed by other youth practitioners and a range of resources, such as templates and worksheets, to help you create your own escape game.

## 2. About the project

The project Escape4SDGs aims to provide youth practitioners with the knowledge, skills, and tools needed to create their own thematic escape games and raise awareness of the SDGs in an engaging and entertaining way.

The SDGs provide worldwide guidance for addressing the global challenges facing the international community. They are about better protecting the natural foundations of life and our planet everywhere and for everyone, and preserving people's opportunities to live in dignity and prosperity across generations. However, young people, who represent the largest generation in history, are often unaware of these goals and their importance.

Through our project, we hope to empower youth-led organisations to participate in translating the 2030 Agenda into local, national, and regional policy. They play a significant role in the implementation, monitoring, and review of the Agenda as well as in holding governments accountable. With political commitment and adequate resources, young people have the potential to make the most effective transformation of the world into a better place for all.

The Escape4SDGs project is based on the principles of experiential learning, which suggests that individuals learn best through experience and active participation. Educational escape games provide an immersive and interactive experience that enables participants to discover things on their own, connect elements of the topic together, and get new insights. Through our project, we aim to make learning about the SDGs fun, engaging, and relevant to young people's lives.

### 3. About the partners

#### Associação SYnergia - Portugal - Coordinator

SYnergia is a proactive and entrepreneurial organisation that aims to promote activities of a (inter) cultural, social, educational, sporting, recreational, artistic, and health promotion nature, primarily targeting young people but extended to all age groups, including children, adults, and people with disabilities.

The association was founded in 2004 and comprises a multidisciplinary team that values youth, sports, and social culture, with a focus on justice, solidarity, responsibility, cooperation, social awareness, and space to exercise and claim rights such as environment, mobility, culture, sport, and leisure. The organisation aims to contribute to the consolidation and promotion of the social fabric and be an important factor in social transformation and innovation.

SYnergia operates in specific areas, according to its core values and objectives, and is divided into departments such as SYnergia Health and Wellbeing, SYnergia Culture, SYnergia Academia, SYnergia Environment, and SYnergia Social and Education. By working in these areas, the organisation impacts the daily lives of thousands of people, giving them opportunities that would not otherwise be available and always thinking about a better future with more conditions.

Website: [www.synergia.pt](http://www.synergia.pt)

#### Istanbul University-Cerrahpasa - Turkey - Partner

Istanbul University - Cerrahpasa, a state university, was established in 2018 by being splitted from the oldest and the biggest University of Turkey, Istanbul University. The Higher Education Council has given this decision due the fact that Istanbul University had 311.078 students, of whom 73.214 were regular and 237.864 distance education students. The two Universities established in 2018 were Istanbul University - Cerrahpasa (IUC) and Istanbul University (IU), that kept the original name. Now, Istanbul University - Cerrahpasa consists of 12 Faculties, 5 Post Graduate Institutes, 5 Vocational Schools, 2081 academic staff and educates some 39.337 students. Medical, Nursing, Education, Engineering, Health Sciences, Veterinary and Forestry are among the faculties that used to be part of Istanbul University and now are transferred to IUC. Istanbul University-Cerrahpaşa Open and Distance Education



Application and Research Center is one of the centres working under the university rectorate. The R&D unit is a unit that focuses on research and development projects. While ongoing projects are being carried out within the unit, new projects are being designed at the same time. It is aimed to increase the quality of education and solve the problems in the middle by integrating modern and advanced technologies into the education processes in the ongoing projects and in the design process.

AUZEM, which has a strong technical infrastructure especially for Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR) fields, Oculus Quest 2, Oculus Rift S, Oculus Go, one of the most used VR-AR-MR headsets in the world, HTC Vive has devices such as and much development work is carried out on these devices. Studies for uploading the products that are produced or to be produced to different application stores and making them available all over the country and the world continue simultaneously with the development processes. In addition to VR, AR and MR fields, research and development studies are also carried out in areas that meet the needs of the era such as "Machine Learning", "Artificial Intelligence" and "Personalized Learning Environments". The R&D unit has both academic and technical personnel for the execution of all these processes. Two academic and three technical staff, who are well-versed in software development processes, ensure the best blending of academic content and software development stages.

Website: [www.iuc.edu.tr](http://www.iuc.edu.tr)

### **Scout Society - Romania - Partner**

Scout Society is a non-governmental organisation from Targu Jiu, Romania, founded in 2011. During the last 2 years, the organisation started to actively design and create immersive educational experiences that use escape rooms as concepts in order to involve the members of the local, regional, national and European communities in active learning on different topics.

The mission of Scout Society is to educate and support access to culture and education of members of the local community through non-formal educational tools, such as escape games. We aim to generate a positive impact in the lives of citizens by actively involving them as participants in our escape rooms. By using the principles of game-based learning and escape rooms, we aim to foster creativity, collaboration, and critical thinking skills in people, while making learning fun and memorable.

So far, the organisation has designed two educational escape rooms on subjects, such as environment and cultural heritage, and at the moment, is working on the third one. The first two escape rooms were created as part of the Erasmus+ projects 'Youth Escape Covid' (Scout Society – coordinator) and 'Escape Depopulation' (Scout

Society – partner). The former escape room is named 'The 3 Rs' and the latter is called 'Constantin Brancusi – the sculptor of the Romanian soul'. These escape rooms are designed to teach critical thinking, decision-making, problem-solving, teamwork, communication skills and develop subject knowledge.

Overall, Scout Society is determined to transform education through immersive, engaging and attractive escape room experiences. The organisation is determined to promote and advertise as much as possible the escape room field as a fertile ground for stimulating innovative learning at the European level. At the same time, the Scout Society team is looking forward to creating synergies and partnerships with stakeholders and organisations that have expertise, are interested in escape rooms and wish to collaborate.

Website: [www.scoutsociety.ro](http://www.scoutsociety.ro)

### **E-SCHOOL EDUCATIONAL GROUP - Greece - Partner**

E-SCHOOL EDUCATIONAL GROUP is an Adult Education Centre and VET provider located in Greece. It is accredited by the Greek Ministry of Education & Qualifications and Vocational Guidance as a lifelong learning centre with the goal of educating VET and adult learners in job-related skills.

It was established in September 2003, and it comprises a team of experts committed to providing quality education and accreditation while also supporting learners in developing skills that will ensure their smooth and successful transition into the labour market. In the last 10 years, over 1500 unemployed individuals have been trained via the «Voucher for Entry to the Labour Market» programs, and over 3000 more trainees in our various seminars.

E-SCHOOL activities target the following Groups:

- Disadvantage groups such as Ethnic Minorities, Migrants, People with Disabilities, Isolated Elderly People, etc.)
- Unemployed
- Employees
- Entrepreneurs
- Trainers, teachers, educators
- Adults and VET learners

The organisation's activities and initiatives are mostly structured around promoting Employability and Entrepreneurship through updating people's occupational qualifications, enhancing their employment perspectives, linking education with labour market needs, supporting equal access and transition to labour market,

overcoming skills mismatch, and fostering social cohesion. Moreover, to better achieve its aims and grant opportunities to a wider audience, E-SCHOOL implements various training, seminars and workshops regarding Digital Literacy, Social Inclusion, Sustainability and Language Learning.

Website: [www.euprojects.gr](http://www.euprojects.gr)

### **Arrabal-AID - Spain - Partner**

ARRABAL-AID is a non-profit association of a social nature created in 1992. Our mission is to work for the full social and labour incorporation of people, especially the most vulnerable, through support actions and advocacy in the social environment:

- Committed, ethical and transparent management;
- Active participation / role of people;
- Professionalism: quality at work in the service of people.
- Sustainability: lasting impact on people, territory and environment;
- Human Dignity: believe in people regardless of their condition;
- Social justice: Inequality, poverty, discrimination are social anomalies;
- Critical reflection: We learn, move forward, we improve;
- Consistency: our actions are proof of our values;
- Respect: There is no single model of citizenship or family. We respect diversity;
- Our organisation is based on consistent, honest and committed people.

Arrabal AID Asociacion offers permanently a series of services designed to comprehensively cover all the needs for training, employment and social revitalization programs. In short, these actions can be briefly summarised as: general information, job guidance, social inclusion, promotion of entrepreneurship, workshops and training, development of international programs, citizen participation activities, inclusion programs for vulnerable groups, etc.

Website: [www.asociacionarrabal.org](http://www.asociacionarrabal.org)



## 4. Theory regarding the Escape Games

The concept of Escape Room Games has existed for many years; however, they have become increasingly popular in recent years as a form of entertainment that offers participants a challenging and immersive experience. Escape Games are team games, where the players enter a themed room full of challenges, which they need to overcome within a set amount of time, to win ('escape the room'). Typically, the challenges are hidden and can be accessed by discovering clues and completing puzzles and tasks (Nicholson, 2015).

The game master briefs the players on the rules, safety precautions, general procedure, and objective of the escape room before the game begins. If a backstory exists, the game master will introduce the participants to it. The door to the room is then locked, and a timer is activated. To advance in the game, players must use the artefacts they have found and decipher clues to solve the puzzles. During this phase, the game master is just an observer who may offer assistance as needed. When the time runs out or the team reaches the goal, the game is over.

While the gameplay of escape rooms may seem simple, the theory behind their design and success is grounded in several concepts from psychology and media studies. One such concept is flow theory, proposed by Csikszentmihalyi (1990), which suggests that optimal experiences occur when individuals are fully immersed in an activity that provides the right balance of challenge and skill. In the context of escape rooms, as in other games, this means that participants experience a state of "flow" when they are fully engaged in the game and feel challenged but not overwhelmed. To achieve the desired mental state of "flow" during the gameplay, the designer must make sure that challenges are developed in such a way that are neither too difficult nor too easy.

Another key concept in understanding the appeal of escape rooms is transmedia storytelling, a term coined by Jenkins (2003) to describe narratives that are told across multiple media platforms. This means that players engage with a story that is conveyed through the game's theme, puzzles, and clues. This form of storytelling enhances player engagement and enjoyment, as well as their sense of achievement upon completing the game. Furthermore, research has shown that the social aspect of playing escape rooms, where players work together to solve puzzles and escape the room, can increase feelings of social bonding and cohesion (Kim et al., 2019). The design of escape games also incorporates elements of game design and gamification, which have been shown to increase engagement and motivation (Deterding et al., 2011). For example, escape rooms often use game mechanics such as points, rewards, and feedback to incentivize players and increase their sense of achievement. All these aspects, along with the room's design and furniture,

contribute to the creation of a believable experience that transports the players to a new world in which they must use their skills and knowledge to solve the puzzles and survive.

Escape games encourage critical thinking and creativity and require attention to detail and teamwork to succeed. Escape games encourage critical thinking and creativity and require attention to detail and teamwork to succeed. They are accessible to players of a broad range of ages and do not favour either gender; in fact, the most successful teams are comprised of players with diverse experiences, skills, prior knowledge, and physical capabilities.

## 4.1 Types of Escape Games

There are plenty of variations on the escape room model, each with distinct characteristics, but all revolving around the concept of solving puzzles to succeed, either individually or as a team. The following are some formats of Escape Room Games.

### 4.1.1 In-Person Escape Games

Players are typically locked in a room and must solve a series of puzzles and riddles to find the key, unlock the door and escape. The puzzles in these games are often based on a theme or narrative, such as a haunted house or a bank heist, and may require logic, mathematics, pattern recognition, or other problem-solving skills to complete. The in-person escape game is the most common type of escape game and is offered by many companies and platforms around the world. The same concept can be transferred outdoors to create an Outdoor Escape Game. These activities can be played in parks, city streets, and other open-air settings. Players may be given a map or clues to follow as they solve puzzles and riddles to progress through the game. Frequently, outdoor escape games require players to utilise their observational and geographical skills along with their knowledge to solve the puzzles.

### 4.1.2 Virtual Escape Games

Virtual escape games are played online or via mobile applications. Players can participate from anywhere, making these games a convenient option for those who cannot physically attend an escape room. Using a computer or mobile device, players can solve puzzles, riddles, and interactive challenges in virtual escape games. Some escape rooms allow players to save their progress and return later. These online adventures feature original plots that keep players engaged and interested until the very end.

### 4.1.3 Hybrid Escape Games

Hybrid escape games combine elements of in-person and virtual escape games. These games may have a physical escape room that players need to attend, but also include virtual elements that are accessed through a mobile application or computer. The virtual elements may include additional puzzles or clues that help players progress through the game. Hybrid escape games offer a unique experience that combines the best of both traditional and virtual escape games.

### 4.1.4 Types of Puzzles

All Escape Games are essentially puzzle games that can take a variety of forms and designs at the designer's discretion. The puzzles must complement one another, be related to the theme of the room, and present participants with several challenges. The puzzles found in Escape Games can be categorised as mental and physical.

Mental puzzles are basically cognitive games, as they require thinking abilities and logic to solve. Participants must deduce, correlate, or interpret clues in order to find the solution. Physical puzzles necessitate the manipulation of real-world objects to overcome the challenge. A maze is an example of such a puzzle as a maze, as the player only needs to find the exit to complete it.

Escape games employ both types of puzzles to make the experience more realistic and actively involve all players, which leads to the meta puzzle. The meta-puzzle is not a separate type of puzzle, it is simply the final puzzle for an escape room. To reach the final answer in a meta-puzzle, you must solve all the previous puzzles and combine their clues, resulting in the solution to the escape game.

There are many ways to design the puzzles of an Escape Game, and they can be categorised according to the sequence in which they appear.

#### Linear Game

In this game the puzzles/challenges must be solved in order. Each puzzle's solution will lead to the solution of the next, and so on. It is simpler for players to solve because the experience is well-organised and guided.

#### Non-Linear Game

This type of game is more complex than their counterparts. This means that the puzzles can be solved in any order. Players must work on different puzzles simultaneously, collect the clues (usually interconnected) and solve the bigger final puzzle to escape the room. It is a more difficult type of escape game as it does not provide a clear indication of where to begin.

#### Mixed Game

This hybrid format combines the previous forms, Linear & Non-Linear, of games. It entails a series of linear puzzles that must be solved in parallel by smaller groups of a team. Multiple intersecting or diverging puzzles are possible. All puzzles could be accessible from the beginning of the game, or they could be unlocked as the player progresses through the game, either through a timed effect or the completion of other puzzle paths. Consequently, mixed

nonlinear and linear escape rooms are suitable for groups of any size. They frequently have a specific sequence and order, are well-organised, and give each participant a task to complete (Wiemker et al., 2015).

## 4.2 Educational Escape Games

Educational escape games have gained popularity in recent years and have attracted the attention of researchers and educators in terms of new Game-Based Learning (GBL) approaches that go beyond the traditional classroom and influence a variety of specialisations and educational contexts. The learning process should be successfully adapted to address the ever-changing needs of the learners and modernise any learning environment. Educational Escape Games incorporate many Gamification and GBL aspects, as innovative learner-focused activities aimed at encouraging active participation in the process.

Live-action games, such as escape games, are considered ideal for in-person classrooms, as they can be set up using hardly any technology and leverage the physical space that classrooms provide. These types of games completely immerse players by transforming their actual environment into a game world. The team of players bring the prompts and artefacts to life by interacting with them and with one another as they explore a narrative-driven challenge. As stated by Nicholson (2018), establishing a shared environment where players collaborate on a game designed to accomplish specific learning outcomes lays the groundwork for active learning and social constructivism. Another point to consider when approaching Escape Games from an educational standpoint is that they are a natural fit for the learning environment of a classroom because they are based on solving mental challenges or puzzles, which pertains to many of the activities that students already encounter. Finally, when the game concludes, there is a perfect opportunity for an educational discussion during the debriefing period. Throughout this stage of the game, players can discuss how they solved the puzzles and which aspects of the puzzles were challenging. Educators can even prepare a list of questions to facilitate reflection on the educational connections that appear during the game (Wiemker et al., 2015).

At first glance, all Escape Games may appear identical, but there are a few fundamental differences between Escape Games for recreational and educational purposes. The puzzles, enigmas, and solutions of an Educational Escape Game are designed for a specific audience and address distinct learning goals and objectives, while recreational Escape Games seek to attract a wide audience and are primarily focused on entertainment. Moreover, Educational Escape Games are founded on social constructivism, according to which learners engage in team-based and collaborative activities to construct knowledge in an interactive manner. The setting in which the activities take place is an additional significant distinction. In recreational Escape Games, the gameplay is typically enacted in a series of interconnected rooms, with a small number of participants per team. Since Educational Escape Games are being implemented in the classroom, educators are unable to utilise different rooms or scenes due to limited resources. To that end and to avoid high dropout rates, educators must design and organise activities that are both engaging and challenging, but not too difficult, for classes or courses with a large number of learners. The difficulty lies in

achieving a balance between educator supervision and learner autonomy (Makri et al., 2021).

#### 4.2.1 The educator's role

The tutor, instructor, and designer of an Educational Escape Game are considered to play a crucial role. They assume a dynamic and motivating role in group work, fostering collaboration among the participants, while ensuring that the GBL methodology is applied accurately so that the learning objectives of the Escape Game are successfully met.

In the introduction phase, the educator is the one responsible for presenting the rules of the game, the storyline, the use of different tools, such as mobile phones, and the role of cooperation to succeed in the game. They often appear to assume multiple responsibilities including pedagogical, social, technical, and managerial roles.

As the master of the session, the educator plays multiple roles during the gameplay, including (a) monitoring, (b) moderating, (c) guiding, (d) facilitating, (e) providing suggestions, (f) motivating, and (g) debriefing. For safety reasons and to ensure that the rules are followed, educators usually monitor the gameplay in the same room (classroom) as learners. In accordance with game theory, the monitoring of recreational Escape Games is performed within an adjacent room, which keeps the participants more immersed in the game's narrative and engaged.

The role of the educator is intertwined with that of the game master as he/she must determine when to intervene and provide a hint to aid the gaming process. (Nicholson, 2015). The educator can intervene in a variety of ways, including affirming and encouraging students to work as a team, providing instructions, verifying answers, and reasoning, or ensuring that techniques or skills are performed accurately. In addition, he/she is the one who provides hints during the gameplay, controlling the number of the hints given and their purpose. In addition, he/she is responsible for providing hints throughout the game, regulating their number and purpose.

In addition to the components listed above, educators must observe attentively and provide constructive feedback to assist students in solving the puzzles. The puzzles and locks themselves contribute to the learners' immediate and unambiguous feedback, which is an essential aspect of the learning process. Educators may also act as social facilitators, encouraging groups of students to work together and assisting them in their efforts to escape the room.

After the game the educators are called upon to conduct a debriefing session, which provides students with an opportunity to mentally process experiential learning activity, self-assess and critically reflect on the game experience. The debriefing session could include the following elements:

- Exchange of ideas and comments on the gameplay
- Participant inquiries and concerns. Participants are permitted to pose questions and verify their reasoning.
- Assessment of the learning objectives and their level of achievement
- Discussion of the puzzles, as well as the course content and skills required to solve them. The connection to the learning objectives is deemed essential in order to reinforce the learners' knowledge as they recall and elaborate on course material.
- Relate the acquired knowledge and abilities to other contexts or to discuss new topics encountered during gameplay.
- Provide feedback on participant performance and their impressions of the entire gaming experience (Makri et al., 2021).

### 4.3 Benefits of Educational Escape Games

The use of Escape Games as an educational tool has been shown to have numerous benefits on the learning process. Since escape games are designed based on gamification and game-based learning methodologies, thus they create a dynamic educational environment that enhances knowledge retention and reinforces learning. As the concepts to be learnt are embedded within the escape game puzzles, they constitute an active learning pedagogy that increases learners' motivation and engagement. According to Nicholson, 2015 Escape Games in the classroom provide a space for experiential learning and skill development in a playful manner, while keeping the learners fully concentrated and interested.

The mechanics of physical or digital Escape Games are based on puzzles, assignments, quizzes, etc., making them suitable for subject-specific learning. Every phase of an escape room can be designed to stimulate or assess particular knowledge or skills, making it an effective learning environment for subject-matter content as well. In this context, it has been shown that these types of activities facilitate the association and implementation of new knowledge and ideas without fear of failure, since they can try and repeat the tasks. The participants, learners, in an escape room have to apply the associations they make, called logical reasoning, to successfully complete the challenges. The logical reasoning is enhanced not only by the individual abilities of each participant, but also by their collaboration in solving the riddles.

According to MIT professor Scot Osterweil all types of games offer the concept of **The Four Freedoms of Play**.

1. **Freedom to Fail**, which is a main aspect of every game, as there is the possibility to fail and start from the beginning. This method incorporates a well-known and proven learning mechanism that dates to the late 19th century and has been studied extensively since the 1980s. Repetitive failure enables students to perceive, remember, and overcome errors.
2. **Freedom to Experiment**, that is interconnected with the first one. Since the player can start over, he/she has also the chance to attempt a variety of strategies to achieve your objective and determine which one is most effective.

3. **Freedom to assume different Identities.** Games allow you to be whoever you choose. By playing multiplayer games, players/learners may uncover a previously unknown aspect of themselves, such as a talent for leadership.
4. **Freedom of Effort.** Depending on the player's motivation games can be played at different paces and engaged with in a variety of ways, enabling them to pause and reflect on duties they have completed.

These freedoms, when applied in the classroom setting, transform the learning experience to an enjoyable and engaging endeavour. (Osterweil, 2014)

#### 4.4 Skills developed through the Educational Escape Games

Studies have shown that Escape Games and Games in general, foster the development of several transversal or soft skills and competences, essential to succeed in the 21st century.

**Social Skills:** Group of students can work together to solve puzzles in escape rooms, acquiring knowledge and insights from their peers in the process. Many well-designed escape games cannot be solved alone, (for instance, it takes two people in different locations to crack a code), requiring participants to communicate and collaborate to solve the puzzles. Effective collaboration, flexibility, compromise, and shared responsibility are also required in the contemporary workplace.

**Critical Thinking:** The puzzles presented in escape rooms range from codes and ciphers and traditional puzzles to locating or manipulating objects and intricate digital puzzles. The game presents players with a variety of problems and risks, requiring them to deliberate and evaluate the best course of action to find the solution. This need for strategy building and decision-making enables students to develop important critical thinking and problem-solving skills.

**Lateral Thinking:** Many of the problems and puzzles that players encounter in escape rooms challenge them to think out of the box and combine objects and ideas in innovative ways. This way of thinking serves as a crucial foundation for creativity and innovation.

**Resilience:** Players also develop resilience and creativity as they attempt to solve puzzles in a variety of methods over and over, as well as come up with creative solutions.

**Time Management:** This ability is also put to the test since escape games are time-based challenges. This, in conjunction with collaboration, can enhance overall personal resource management.

**Engagement:** As escape games are inherently exciting, immersive, and engaging, students are more likely to persevere and be motivated to work through difficult content without seeking assistance.

Another aspect to consider is that the development of these skills contributes to the growth of social and emotional learning skills, which foster the acquisition and application of the knowledge, attitudes, and abilities required to comprehend and manage emotions, set and achieve positive goals, feel and demonstrate empathy for others, establish and maintain positive relationships, and make responsible decisions.

It is evident that the Game-Based Learning and Gamification methodologies on which Escape Games are based, stimulate the development of 21st century skills, which can have a pivotal role in students' learning performance. (Sowell, 2020)

## 5. Guidelines on how to create Educational Thematic Escape Games

Educational escape games are a type of interactive learning experience that allows participants to learn and practise new skills in a fun and engaging way. The games are designed to challenge participants to solve puzzles and riddles in order to "escape" from a specific scenario or environment. The games are a creative and effective way to teach people important concepts and skills, while also promoting teamwork and problem-solving abilities.

In an educational escape game, participants work together in small groups to solve a series of puzzles or challenges that are related to a particular topic. For example, an educational escape game on environment might involve people trying to escape from an environmental catastrophe, while an educational escape game on environment might involve people solving puzzles related to achieving the Sustainable Development Goals in order to escape from a trap.

Educational escape games can be played in a variety of settings, either indoor or outdoor, in libraries, museums, parks etc. They can also be adapted for different age groups and learning levels. One of the key benefits of educational escape games is that they promote collaborative learning and problem-solving skills. Participants must work together and communicate effectively in order to solve the puzzles and escape from the game. They also provide a fun and engaging way to learn and practise new skills, which can help to increase motivation and engagement in the learning process.

**Here are some guidelines to help you create an effective educational escape game:**

### 1. Choose a theme and a name

The first step is to choose a theme for your escape game that is relevant to the topic you want to teach. For example, if you want to teach students about cultural heritage, you



could search for cultural heritage assets in your community and choose those assets as a topic.

The name and topic are the first two elements to be defined in order to then be able to develop the story and decide the location in which the escape room will be developed. Whoever develops the escape room will have complete freedom in defining these two elements. The important thing is that the name, topic and location remain consistent when writing the story that will form the backdrop to the escape room. In fact, the story and the setting go hand in hand, and if the narrative defines the thread of the game, it is the setting that defines the scene.

## 2. **Develop a storyline/ the narrative**

Once you have chosen your theme, develop a storyline that will engage and challenge your participants. The storyline should be based on the theme you have chosen and should be related to the topic you want to deliver knowledge about. For example, if your theme is "Escape from the Revolutionary War," your storyline could involve a group of spies trying to escape from the British army.

The narrative is the main element without which the escape room could not exist. Thanks to a compelling narrative, an incredible adventure can be created. The goal of a captivating narrative is for players to have a motivation to enter the room and be motivated to investigate.

More in detail, defining the narrative therefore means defining:

- The players' **mission**: this is what the players are engaged in. This must be captivating and suitable for the target group. The mission must be easy for the players to understand. A mission that is too complex could confuse the group by giving importance to minor details;
- The **challenges** of the players to complete the mission must be meaningful and integrated into the underlying narrative to provide the participants with a purpose for their actions. This can be achieved, for instance, by having the player accomplish quests by overcoming conflicts;
- The **role of the players** and the **game master**: it must be well defined and clear to the players what role they play, what the role of the master is, when they can ask for his intervention and what they want to achieve by completing the game;
- Decisions in terms of **budget**, **possibilities** and **constraints** (internal, external, group size, etc.).

## 3. **Create puzzles and challenges**

The heart of an escape game are the puzzles and challenges that students must solve in order to escape. Create a variety of puzzles and challenges that are related to the chosen theme. For example, if you want to teach students about maths, you could create puzzles that involve solving equations or geometric shapes.

Some common types of puzzles and challenges found in educational escape rooms include:

- **Physical puzzles:** These puzzles require players to manipulate physical objects in the room to find clues or solve puzzles. For example, a puzzle might require players to use a physical key to unlock a box containing a clue;
- **Logic puzzles:** These puzzles require players to use their reasoning and deductive skills to solve a problem. For example, a puzzle might require players to figure out the correct sequence of numbers or symbols to unlock a combination lock;
- **Cryptographic puzzles:** These puzzles require players to decode or decipher messages using various encryption techniques. For example, a puzzle might require players to use a Caesar cipher to decode a message;
- **Pattern recognition puzzles:** These puzzles require players to identify and recognize patterns in order to solve a problem. For example, a puzzle might require players to match a series of symbols or colours in a specific order;
- **Collaborative puzzles:** These puzzles require players to work together to solve a problem. For example, a puzzle might require players to each hold a key and turn it at the same time in order to unlock a door.

In addition to puzzles and challenges, educational escape rooms may also include other elements such as narrative or thematic elements, time limits, and rewards for successful completion. By engaging students in a fun and interactive learning experience, educational escape rooms can be a powerful tool for teaching new skills and concepts.

#### 4. **Design the game space/settings**

Design the physical space where the game will take place. This could be a classroom or a designated escape room. Make sure that the space is decorated and set up to fit the theme of the game. For example, if your theme is "Escape from the Lab," you could set up the space to look like a laboratory with beakers, test tubes, and other scientific equipment.

An escape room can be set in almost any kind of place we can think of. The setting has a profound influence on the players when it comes to an escape room because it is what draws the participants into the story and will allow them to experience the emotions you want to convey. An escape room can be set in almost any kind of place we can think of. The setting has a profound influence on the players when it comes to an escape room because it is what draws the participants into the story and will allow them to experience the emotions you want to convey. Most escape rooms don't have a single room or location, but several physical spaces that players pass through. These physical spaces create different stages of the game and the designer can use this technique to create an increasing flow of complexity in the game. Players begin in a room with a few puzzles, the resolution of which gives them access to another space with more complex puzzles.

##### **Provide clear instructions:**

Make sure that students understand the rules and objectives of the game before they start playing. Provide clear instructions on how to play the game, including how to solve puzzles and escape the room.

Instructions play a crucial role in educational escape rooms. Clear and concise instructions can help students understand the objectives of the escape room, the rules of the game, and how to play. Good instructions can also help prevent confusion and frustration among students, which can detract from the educational value of the experience.

Here are some reasons why instructions are important in educational escape rooms:

- **Understanding the objectives:** The instructions should clearly outline the objectives of the escape room, such as the educational goals or learning outcomes that students should achieve by the end of the game. This helps students understand the purpose of the experience and motivates them to engage fully;
- **Learning the rules:** The instructions should explain the rules of the game, such as how to use props or interact with the room's features. This ensures that students play the game fairly and that they do not damage any of the escape room's equipment;
- **Providing guidance:** The instructions should guide students through the experience, providing clues and hints to help them solve puzzles and challenges. This ensures that students do not become stuck or frustrated and that they can make progress throughout the game;
- **Ensuring safety:** The instructions should provide safety guidelines and precautions, such as not climbing on furniture or using excessive force. This helps prevent accidents or injuries and ensures that students can safely enjoy the experience;
- **Enhancing the educational value:** Clear and well-written instructions can enhance the educational value of the experience by reinforcing key concepts, vocabulary, or skills. This can help students retain and apply what they have learned long after the game has ended.

In summary, instructions are an essential component of educational escape rooms. They help students understand the objectives of the experience, learn the rules, provide guidance, ensure safety, and enhance the educational value of the game.

#### 5. **Incorporate learning objectives:**

Remember that the goal of the escape game is to educate participants about important concepts and skills. Make sure that the puzzles and challenges you create are aligned with the learning objectives of the lesson.

Incorporating learning objectives in educational escape rooms is crucial because it ensures that the experience is aligned with the educational goals of the lesson or course. By setting clear learning objectives, the escape room becomes more than just a fun activity - it becomes a powerful tool for learning.

Here are some reasons why it is important to incorporate learning objectives in educational escape rooms:

- **Focus on key concepts:** By setting learning objectives, you can ensure that the escape room focuses on the key concepts and skills that participants need to master. This helps to reinforce the most important aspects of the lesson or course and ensures that the learning experience is relevant and meaningful;
- **Provide structure:** Learning objectives provide structure to the escape room experience, guiding students through a set of specific learning outcomes. This helps participants to understand the purpose of the experience and motivates them to engage fully;
- **Align with standards:** Incorporating learning objectives ensures that the escape room is aligned with the standards and learning outcomes set by the course or program. This helps to ensure that the escape room is an effective tool for learning and that it meets the requirements of the curriculum;
- **Measure success:** By setting learning objectives, you can measure the success of the escape room in achieving the educational goals of the lesson or course. This allows you to evaluate the effectiveness of the escape room in supporting student learning and adjust the experience as needed;
- **Enhance engagement:** Incorporating learning objectives can enhance participants' engagement by making the escape room experience more relevant and meaningful. By understanding the educational goals of the experience, participants are more likely to see the value of the activity and be motivated to participate fully.

In summary, incorporating learning objectives in educational escape rooms is important because it ensures that the experience is focused on key concepts, provides structure, aligns with standards, measures success, and enhances engagement. By setting clear learning objectives, you can create an escape room experience that is both engaging and effective in achieving its educational goals.

## 6. Test and revise

Once you have created the game, test it with a group of participants to see how well it works. Use their feedback to make revisions and improve the game.

Testing and revising an educational escape room is an important process to ensure that the room is engaging, challenging, and effective in achieving its educational objectives. Here are some steps you can follow to test and revise your educational escape room:

- **Test the room with a small group:** Start by testing the escape room with a small group of friends, people from your community. Observe how they interact with the puzzles and challenges and ask for feedback on the room's difficulty level, clarity of instructions, and overall enjoyment.
- **Collect feedback:** Gather feedback from participants using surveys, questionnaires, or interviews. This can help you identify areas for improvement and ensure that the escape room is meeting its educational objectives.
- **Analyse feedback:** Analyse the feedback you have collected to identify patterns and themes. Look for common issues or areas that require improvement, such as confusing instructions, too-easy or too-difficult puzzles, or technical difficulties.

- Revise the room: Based on the feedback you have received, revise the escape room to address any issues or areas for improvement. This may involve tweaking the difficulty level of puzzles, rewriting instructions, or adding new elements to enhance engagement and learning.
- Test again: Test the revised room with another small group of participants to ensure that the changes you have made are effective in addressing the issues identified during the initial testing.
- Iterate: Continue to test, revise, and test again until you are satisfied with the quality of the escape room. This iterative process can help you refine the room and ensure that it is engaging, challenging, and effective in achieving its educational objectives.

In summary, testing and revising an educational escape room involves testing the room with a small group, collecting feedback, analysing the feedback, revising the room, testing again, and iterating until you are satisfied with the quality of the room. This process can help you create an engaging and effective educational experience that meets the needs of your target group.

In conclusion, by following these guidelines, you can create an educational escape game that is engaging, challenging, and effective at educating your target group important concepts and skills.

### 5.1 Tips on how to set up a room with recycled/reusable materials

Making an escape room more ecological and recyclable involves considering various aspects from design to the choice of materials:

- **Sustainable design:** When designing your escape room, try to use sustainable materials and resources. Use natural light as much as possible to reduce energy consumption, and consider using recycled or reused materials in construction.
- **Eliminate single-use plastic:** Avoid the use of disposable plastic in the decoration and props of the escape room. Opt for durable, reusable materials instead, such as wood, metal, or glass.
- **Recyclable materials:** Use materials that are easily recyclable when building your escape room items. For example, use cardboard, paper, cloth, and similar materials that can be recycled at the end of their useful life.
- **Efficient lighting:** Use energy efficient LED lighting instead of traditional light bulbs. Also, consider installing motion sensors to ensure lights only turn on when people are in the room.
- **Encourage recycling:** Place recycling bins in the escape room and provide clear instructions on what materials can be recycled and how to do it correctly. In this way, participants can learn and practice recycling while enjoying the game.
- **Reuse:** When you disassemble the escape room, carefully remove and store the materials so that you can use them in future escape rooms. On many occasions,

- haste or carelessness causes, for example, posters that we have pasted on the wall to be damaged, and therefore cannot be reused, and must be printed again.
- **Sustainable printing and stationery:** If you need to print clues, instructions or other materials, use paper that is recycled or certified by organizations that promote forest sustainability, such as the Forest Stewardship Council (FSC). Also, avoid unnecessary printing and encourage the use of electronic devices to display information.
  - **Sustainable maintenance:** Make sure to use ecological and environmentally friendly cleaning products to keep your escape room in good condition. Avoid using harsh chemicals and look for biodegradable alternatives.
  - **Natural decoration:** Use elements of nature for decoration, such as branches, leaves, stones or dried flowers. These items can be responsibly collected and reused in different games.
  - **Conscious use of water:** If your escape room requires the use of water, make sure you use it consciously and efficiently. Check that there are no leaks in faucets or pipes, and encourage participants to use only the necessary amount of water during the game.
  - **Collaborations with sustainable local suppliers:** Seeks to collaborate with local suppliers that have sustainable practices. For example, you could purchase building materials from companies that use recycled or reusable materials, or look for food and beverage providers that offer organic and fair trade options.

### DIGITAL PROMOTION

Our escape room needs participants, so we must offer them the sufficient information so that they come to attend and have a fun time learning. For dissemination, we prefer digital promotion, instead of using printed flyers or physical advertising, focus on promoting your escape room digitally. Use social networks, websites and email to reach your target audience. This will reduce the use of paper and physical materials.

### ENVIRONMENTAL AWARENESS

Take the opportunity to educate your participants about environmental issues while enjoying the escape room. It incorporates educational messages, advice and relevant information on the importance of sustainability and how each person can contribute to caring for the planet. Create new games or add some part in your games about:

**Eco Theme:** You can incorporate an eco theme into the escape room plot. For example, you can create a story that promotes environmental awareness and the importance of taking action to protect the environment.

**Sustainability-Based Games and Challenges:** Create challenges within the escape room that encourage sustainability and green decision-making. For example, you can include riddles related to conserving energy, recycling, or reducing waste.

### EVALUATION AND CONTINUOUS IMPROVEMENT

Regularly review and evaluate the practices and materials used in your escape room to identify opportunities for improvement in terms of sustainability. Consider the opinions and suggestions of the participants to implement positive changes.

By implementing these tips, you will be contributing to the protection of the environment while providing a fun and conscious escape room experience. Remember that every little action counts, and a commitment to sustainability can make a difference.

Remember that creativity is key when making an escape room more ecological and recyclable. Have fun while promoting sustainability!

## 5.2 Tips on how to adapt the games for visually impaired and hearing-impaired people

### Adapting Educational Escape Games on SDGs for Visually and Hearing-Impaired Individuals

#### Introduction

Educational escape games offer a unique and interactive approach to learning about the Sustainable Development Goals (SDGs) by fostering critical thinking, problem-solving, and teamwork skills among young people. To ensure that these games are accessible to a diverse range of participants, including those with visual or hearing impairments, it is crucial to adapt the game design and materials accordingly. This comprehensive guide discusses in detail how to create accessible educational escape games on society, environment, culture, and economy for visually impaired and hearing-impaired individuals.

### Adapting Escape Games for Visually Impaired Participants

#### Tactile elements and Braille

Incorporate tactile elements into your escape game to enable visually impaired players to explore and interact with the game environment. Textured surfaces, raised line drawings, and 3D printed objects can help players perceive the layout of the room and provide essential information for solving puzzles.

Ensure that all written materials, including game instructions, clues, and puzzle descriptions, are available in Braille. If possible, provide Braille labels for objects in the game as well.

Example: In a game addressing waste management, players might need to sort different types of waste into appropriate bins by feeling the shape and texture of the items. Each bin could have a Braille label describing the type of waste it accepts.

### Audio descriptions and guidance

Provide audio descriptions of the game environment, puzzles, and clues to help visually impaired participants navigate the room and understand the context. These descriptions can be pre-recorded or delivered by a live narrator.

Additionally, offer guidance in the form of recorded messages, a live guide, or a smartphone app that provides real-time assistance when needed.

Example: In a game about sustainable transportation, players might be required to assemble a model of a public transport system by listening to audio descriptions of different transport options and then selecting the most sustainable choices.

### Collaborative gameplay

Encourage teamwork by pairing visually impaired participants with sighted players. This shared experience can enhance communication, cooperation, and problem-solving skills while making the game more enjoyable for all.

Example: In a game addressing gender equality, players could work together to create a visual timeline of important milestones in the fight for gender equality. Visually impaired participants could provide historical context and insights, while sighted teammates help arrange the timeline.

### Lighting and contrast

For players with low vision, use high-contrast colors and lighting to make objects and clues easier to see. This can include using bold colors, clear fonts, and appropriate lighting levels to maximize visibility.

Example: In a game about access to clean water, use brightly colored objects and well-lit areas to represent sources of clean water, contrasting them with darker objects and dimly lit areas representing polluted sources.

## Adapting Escape Games for Hearing-Impaired Participants

### Visual cues and information

Ensure that all auditory information is available in a visual format, such as written text or graphics. Use clear, concise language, and incorporate sign language translations



where possible. Visual aids like illustrations, diagrams, and flowcharts can also help convey complex ideas.

Example: In a game about social justice, players could encounter a series of posters displaying powerful images and text that highlight different social issues. Players must then identify the common thread connecting these issues to solve a puzzle.

### **Vibrating alerts and haptic feedback**

Incorporate vibrating devices or haptic feedback systems to alert players to important events or provide feedback on their actions. This can be particularly useful for time-sensitive puzzles or when signaling success or failure.

Example: In an environmental-themed game about deforestation, players might need to navigate a maze representing a forest while avoiding "logging" areas. A vibrating wristband could signal when players approach these danger zones, helping them make informed decisions about their path.

### **Visual communication tools**

Provide dry-erase boards, tablets, or other visual communication tools to facilitate communication among hearing-impaired participants. This enables players to collaborate effectively on solving puzzles, even in the absence of spoken language.

Example: In a game exploring the impact of globalization on local communities, players could use a tablet to sketch ideas for sustainable development projects that support local culture and traditions while sharing them with their teammates.

### **Captioning and transcripts**

Include captions and transcripts for any videos or audio recordings used in the game. This ensures that hearing-impaired players have access to the same information as their hearing peers.

Example: In an escape game about the importance of education, players may watch a series of videos featuring interviews with people who have overcome barriers to education. Providing captions and transcripts allows hearing-impaired players to understand the content fully.

### **Non-verbal audio cues**

Incorporate visual alternatives for audio cues, such as flashing lights, color-coded signals, or on-screen text. This ensures that hearing-impaired players can effectively engage with the game and understand critical information.

Example: In a game about responsible consumption and production, players might need to identify products with sustainable certifications. A flashing light or color-coded signal could indicate when a correct product is chosen.

### Conclusion

Adapting educational escape games for visually and hearing-impaired participants requires careful consideration of accessibility features and a commitment to inclusive design. By incorporating tactile elements, Braille, audio descriptions, visual cues, and communication tools, designers can create an engaging and immersive experience that is accessible to all.

Creating inclusive escape games not only promotes active citizenship and social engagement but also raises awareness about the importance of the SDGs among a diverse audience. By designing escape games with the needs of visually and hearing-impaired participants in mind, we can foster a more inclusive and equitable learning environment that empowers all young people to contribute to a better future.

## 6. Examples of Educational Thematic Escape Games

### 6.1 Escape Game tackling society – “The Conspiracy Room”

The Conspiracy Room is an SDGs Escape Room activity that aims to raise awareness about the importance of the United Nations Sustainable Development Goals (SDGs) and the role of individuals in achieving them. The game requires players to solve puzzles related to societal issues such as poverty, health access, polluted cities, lack of renewable energy, and injustice and corruption, which are all part of the SDGs. The activity encourages players to enhance problem-solving and critical thinking skills and collaborate with their team.

In the game, players are a team of activists who have infiltrated the room of a group of powerful conspirators who are planning to perpetrate heinous crimes that threaten the world. Players must find evidence to expose the conspiracy that the SDGs have been hidden from the entire society. However, they only have 60 minutes to solve the puzzles and escape before the conspirators return and catch them.

The challenges in the game are designed to correspond with different SDGs. For example, players must find where the conspirators keep their savings (corresponding to SDG1 - no poverty), where the conspirators keep their medical resources (corresponding to SDG3 - good health and well-being), where the conspirators are

hiding their research on green energy (corresponding to SDG7 - affordable and clean energy), and where the conspirators are hiding the map of a sustainable city (corresponding to SDG11 - sustainable cities and communities). Players must also release a peace dove to find justice (corresponding to SDG16 - peace, justice, and strong institutions).

The Conspiracy Room is a fun and engaging way to promote awareness about the SDGs and encourage players to become agents of change in their communities. The activity promotes teamwork, problem-solving, and critical thinking skills and highlights the importance of addressing societal issues related to poverty, health access, polluted cities, lack of renewable energy, and injustice and corruption, which are all part of the SDGs.

## 6.2 Escape Game tackling environment – “Escape the ‘CODE RED’ Warning”

The escape room ‘Escape the ‘CODE RED’ Warning’ approaches the topic of Environment and Sustainable Development Goals. The entire game will focus exclusively on 4 UN Sustainable Development Goals: Goal 6 (Ensure access to water and sanitation for all), Goal 13 (Climate Action: take urgent action to combat climate change and its impact), Goal 14 (Life Below Water: conserve and sustainably use the oceans, seas and marine resources for sustainable development), and Goal 15 (Life on Land: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation). Each of the challenges and specific puzzles of the escape room revolve around one specific goal and aims at engaging players in learning about the Goals and their mission through playing.

The mission of the escape room is to Save Planet Earth by Contributing to a Sustainable Future. The main learning objectives of the escape room are to encourage and train players to learn about the UN Sustainable Development Goals, particularly about Goal 6, Goal 13, Goal 14 and Goal 15, learn about the sustainable management of water and sanitation, understand concepts, such as carbon footprint, land degradation, sustainability, become aware of practices of protecting the environment, such as recycling, activities that reduce the carbon footprint, water conservation activities, avoiding land degradation, be aware of the importance of sanitation and the challenges faced by communities around the world that lack access to proper sanitation facilities.

With regard to challenges and puzzles, the game consists of 5 challenges and 9 puzzles. Players will have the opportunity to immerse in various, interactive and attractive puzzles, such as riddles, jigsaw puzzles, crossword, and logical puzzles. Participants need to solve each puzzle at a time, in order to unlock their access to the next challenges

and puzzles and proceed to solving the final mission. Thus, the game has a linear flow. They will have the chance to exercise their abilities and skills, such as creativity, reasoning, problem solving, team-work and game-based learning. One of the advantages of the escape room is that it is designed to be played virtually and physically. It can be played by small or big groups of people. Moreover, the players can play individually, by themselves or in groups.

At the end of the game, the game master will bring the players all together and take them through a series of debriefing questions. These questions are essential in order to gather feedback from the players, understand the game flow, players' experiences, what can be improved. The debriefing session leaves space for participants to reflect on their experience in an educational escape room.

All in all, the escape room 'Escape the 'CODE RED' Warning' makes it possible for players to immerse into an interactive learning experience that allows them to learn about the Environment and the UN Sustainable Goals in a fun and engaging way.

### 6.3 Escape Game tackling culture

Games are a tool to address gender-related issues in a way that is accessible and engaging for a broad audience. They provide a safe and non-threatening space to explore gender issues and to foster understanding and empathy towards the experiences of people of different gender identities.

Gender equality in culture refers to the elimination of stereotypes and gender roles that limit people based on their gender identity. It is about creating a culture in which all people, regardless of their gender, have the same opportunities and rights. To achieve gender equality in culture, it is necessary to encourage the equal representation of genders in the media, games, art and literature. This means not only ensuring that there is equal gender representation in products, but also that characters of both genders have varied and complex characteristics and personalities.

Games can also help challenge gender stereotypes and promote inclusion and diversity in the media and popular culture. Game characters can be designed to represent a wide range of gender identities and personalities, which can help break down gender stereotypes. Additionally, gaming can provide positive models of leadership and success that are not constrained by gender, which can foster a more inclusive and just culture.

Gender equality in culture can also be achieved through the promotion of diversity and inclusion. This means fostering the representation of people of different gender identities, as well as other diverse identities, in popular culture.

The game that presents the above, from giving the player the opportunity to choose their identity, to questioning how society awards you a toy based on the sex you were born with. In a natural way, stereotypes are worked on, downplaying very important decisions that we make every day to fit into society.

In general, gender equality in culture is about fostering a more inclusive and just society, in which all people have the same opportunities and rights, regardless of their gender. Games can be a powerful tool to educate about gender and promote gender equality in society, by providing a safe and accessible space to explore gender issues, challenge stereotypes, and promote inclusion and diversity.

#### 6.4 Escape Game tackling economy - “EmployTech”

The future of Economy is closely connected to Industry 5.0, as it is anticipated that it will generate new employment opportunities requiring human skills such as creativity, critical reasoning, and emotional intelligence. This can stimulate economic growth via innovation, customised products, and expanded markets. Additionally, Industry 5.0 can contribute to sustainable manufacturing practices by encouraging resource utilisation, waste reduction, and environmentally responsible production. Countries and businesses that embrace Industry 5.0 can gain a competitive advantage by offering innovative and sustainable products on the global market. In addition, Industry 5.0 has the potential to promote economic inclusion by creating employment opportunities for a variety of workers. Therefore, the adoption of the principles of Industry 5.0 will shape the future of the economy and allow the development of human-centric skills.

The Escape Game named “EmployTech” has been designed to help youths uncover the key principles of employability in Industry 5.0. They will gain a deeper understanding of the skills, mindset, and behaviours required to thrive in the future of work, where humans and technology collaborate in innovative and transformative ways. Finally, they will recognise the significance of employing Circular Economy principles in the workplace of the future, which can lead to a more sustainable, resilient, and accountable workplace that contributes to a sustainable future for the planet and society.

## 7. Training plan for youth practitioners

### Training Plan: Educational Thematic Escape Games for Youth Practitioners

#### Objective:

The training plan aims to equip youth practitioners with the knowledge and skills required to create and set up Educational Thematic Escape Games focused on raising awareness of the importance of achieving the Sustainable Development Goals (SDGs) while fostering the development of critical thinking, problem-solving, and teamwork skills among participants.

#### Duration:

The training program will span over 5 days.

#### Day 1: Foundation and Understanding

##### Session 1: Introduction to Educational Thematic Escape Games

- Overview of escape games and their educational benefits;
- The significance of SDGs in the global context;
- Role of youth practitioners in promoting SDGs through escape games.

##### Session 2: Selecting and Framing SDGs for the Game

- Identifying relevant SDGs and their interconnectedness for the game's theme;
- Framing the game's narrative around the chosen SDGs;
- Tailoring the game's complexity to the target audience.

##### Session 3: Puzzle Types and Design

- Understanding different puzzle types (logic, riddles, physical, etc.);
- Designing puzzles that align with the game's narrative and encourage critical thinking;
- Integrating educational content effectively into the puzzles.

##### Session 4: Creating the Game Flow and Room Setup

- Mapping out the game flow and sequence of puzzles;
- Considering the physical layout of the escape room to enhance the gameplay;
- Ensuring safety and accessibility for all participants.

#### Day 2: Developing Immersive Experiences

##### Session 5: Storyline and Narrative Development

- Crafting a compelling storyline that revolves around the chosen SDGs;
- Exploring techniques to engage players emotionally and intellectually throughout the game.

### **Session 6: Facilitation and Communication Skills**

- Training youth practitioners in effective facilitation techniques during the game;
- Practicing clear and concise communication with participants.

### **Session 7: Implementing Puzzles and Game Testing**

- Setting up puzzles within the escape room environment;
- Conducting a trial run of the escape game with a small group of participants;
- Collecting feedback for refinement.

### **Session 8: Iteration and Finalization**

- Reviewing feedback from the testing phase and making necessary improvements;
- Finalizing all elements of the escape game, including storyline, puzzles, and room setup.

## **Day 3: Launch and Implementation**

### **Session 9: Preparing for Game Launch**

- Strategies for promoting the escape game and attracting participants;
- Addressing logistical and operational considerations for the game launch.

### **Session 10: Post-Launch Support and Sustainability**

- Supporting participants in implementing their escape games after the training;
- Establishing online community platforms for ongoing collaboration and resource sharing.

## **Day 4: Scaling and Outreach**

### **Session 11: Scaling the Impact**

- Exploring strategies for scaling up escape games to reach a larger audience;
- Leveraging partnerships and collaborations to increase the game's impact.

### **Session 12: Building Outreach and Advocacy**

- Developing outreach and advocacy plans to engage the community and stakeholders;
- Empowering participants to become ambassadors for SDGs through escape games.

## **Day 5: Future Directions and Conclusion**

### **Session 13: Reflection and Future Directions**

- Reflecting on the journey of the training program;
- Exploring potential future projects and collaborations related to SDGs and escape games.

## Session 14: Celebration and Closing

Celebrating the successful completion of the training;  
Acknowledging the efforts of participants and their commitment to promoting SDGs;  
Concluding the training program on a positive note.

### 7.1 Raising awareness of the importance of achieving the SDGs

The Sustainable Development Goals (SDGs) are a set of 17 global goals established by the United Nations in 2015. They are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by the year 2030. The SDGs cover a wide range of interconnected issues, including poverty, hunger, health, education, gender equality, clean water and sanitation, renewable energy, economic growth, sustainable cities, climate action, and more.

The importance of achieving the SDGs is multi-faceted and can be summarized as follows:

#### Ending Poverty

The first goal of the SDGs is to eradicate extreme poverty and hunger. Achieving this goal would improve the lives of billions of people, ensuring they have access to basic necessities such as food, clean water, healthcare, education, and decent work opportunities.

#### Sustainable Development

The SDGs emphasize the need for sustainable development, which means meeting present needs without compromising the ability of future generations to meet their own needs. By integrating economic growth, social inclusion, and environmental protection, the SDGs aim to create a balanced and sustainable world for current and future populations.

#### Equality and Inclusion

The SDGs prioritize achieving gender equality and empowering all individuals, regardless of their age, sex, disability, ethnicity, or socioeconomic status. By addressing inequalities and promoting inclusive policies and practices, the SDGs strive to create a more equitable society.



### Environmental Sustainability

The SDGs recognize the urgent need to protect our planet and combat climate change. They advocate for responsible consumption and production patterns, conservation of natural resources, sustainable management of ecosystems, and mitigation of greenhouse gas emissions. These efforts are crucial for preserving biodiversity, mitigating the impacts of climate change, and ensuring a habitable planet for future generations.

### Partnerships and Global Cooperation

Achieving the SDGs requires collaboration and cooperation among governments, businesses, civil society organizations, and individuals worldwide. The SDGs serve as a common framework that fosters partnerships and encourages stakeholders to work together, share knowledge, and pool resources to address complex global challenges effectively.

### Peace and Stability

The SDGs acknowledge the interconnectedness of peace, justice, and sustainable development. They emphasize the importance of inclusive societies, access to justice, accountable institutions, and peaceful and inclusive societies as fundamental prerequisites for sustainable development.

Failing to achieve the SDGs would result in worsening poverty, inequality, and environmental degradation, leading to social unrest, economic instability, and ecological crises. Therefore, it is crucial to prioritize and work towards achieving the SDGs to create a more prosperous, inclusive, and sustainable future for all.

## 7.2 Development of important skills in achieving the SDGs

To effectively contribute to the achievement of the Sustainable Development Goals (SDGs), individuals can develop various skills that empower them to make a positive impact. Here are some important skills to consider:

### Awareness and Understanding

Developing knowledge about the SDGs, their targets, and the interconnectedness of global challenges is crucial. Stay informed about the issues addressed by the SDGs, such as poverty, climate change, inequality, and sustainable development. Understand the underlying causes, consequences, and potential solutions related to each goal.

### Critical Thinking and Problem-Solving

Enhance your critical thinking skills to analyse complex problems, identify root causes, and propose innovative solutions. The SDGs require creative problem-solving approaches that balance social, economic, and environmental dimensions. Develop the ability to think critically, question assumptions, and generate sustainable and inclusive strategies.

### Collaboration and Communication

Building effective partnerships and collaborating with diverse stakeholders is vital for SDG implementation. Develop strong communication skills to engage and mobilize others, negotiate and mediate conflicts, and foster cooperation across sectors, cultures, and disciplines. Effective communication also involves active listening, empathy, and the ability to convey complex ideas clearly.

### Leadership and Influence

Cultivate leadership skills to inspire and mobilize others towards the SDGs. Effective leadership involves setting a vision, facilitating change, and empowering others to take action. Influence decision-making processes, advocate for sustainable practices, and motivate individuals and organizations to prioritize the SDGs.

### Systems Thinking

Understand the interconnections and interdependencies among different aspects of sustainable development. Develop systems thinking skills to analyze the broader social, economic, and environmental contexts in which the SDGs operate. This holistic perspective enables you to identify leverage points, anticipate unintended consequences, and design more effective interventions.

### Data Literacy and Analysis

Data plays a crucial role in measuring progress towards the SDGs and identifying areas for improvement. Develop skills in data literacy, including the ability to access, interpret, and analyze data related to sustainable development. Understand statistical concepts, data visualization techniques, and how to use data to inform decision-making and advocate for evidence-based policies.

### Entrepreneurship and Innovation

Promote sustainable entrepreneurship and innovation to address the SDGs. Develop an entrepreneurial mindset that encourages creativity, risk-taking, and the development of sustainable business models. Identify opportunities for innovation and develop solutions that contribute to the achievement of the SDGs, whether through technology, social enterprises, or policy entrepreneurship.

### Cultural Competence and Inclusion

Recognize and value diverse perspectives, cultures, and experiences. Develop cultural competence to effectively collaborate and engage with individuals from different backgrounds. Embrace inclusion and equity in your work towards the SDGs, ensuring that marginalized communities are included in decision-making processes and benefiting from development initiatives.

By developing these skills, individuals can play an active role in advancing the SDGs and making a positive impact in their communities and beyond.

Escape rooms can provide a unique and engaging platform for developing the skills that are relevant to achieving the SDGs. Here are some ways escape rooms can contribute to skill development:

### Collaboration and Communication

Escape rooms typically require teamwork and effective communication to solve puzzles and escape within a time limit. Players must work together, share information, delegate tasks, and communicate clearly to progress. This fosters collaboration, enhances communication skills, and promotes teamwork, all of which are valuable for SDG-related initiatives that require partnerships and cooperation.

### Critical Thinking and Problem-Solving

Escape rooms present challenging puzzles and riddles that require analytical thinking, problem-solving, and decision-making. Participants must think critically, connect clues, and find creative solutions. By engaging in such activities, individuals can sharpen their critical thinking skills and apply them to real-world challenges associated with the SDGs.

### Time Management and Decision-Making

Escape rooms impose time constraints, forcing participants to manage their time effectively. They need to make quick decisions, prioritise tasks, and allocate resources efficiently. Developing these skills within the context of an escape room can translate to better time management and decision-making abilities in SDG-related projects and initiatives.

### Adaptability and Resilience

Escape rooms often introduce unexpected twists and surprises, requiring participants to adapt their strategies and persevere through challenges. This cultivates adaptability and resilience in the face of uncertainty, which are essential skills for navigating complex and dynamic environments related to sustainable development.

### Systems Thinking

Escape rooms are designed as interconnected puzzles and challenges, requiring players to consider the bigger picture and identify the relationships between various elements. This promotes systems thinking, helping participants understand the interdependencies and interactions between different components, which is crucial for addressing the interconnected nature of the SDGs.

### Leadership and Decision-Making

Escape rooms provide an opportunity for participants to take on leadership roles, delegate tasks, and guide the group towards a common goal. Leading a team in an escape room setting can enhance leadership skills, including effective decision-making, clear communication, and the ability to motivate and coordinate a group. These skills are transferable to SDG-related projects that require leadership and coordination.

### Creativity and Innovation

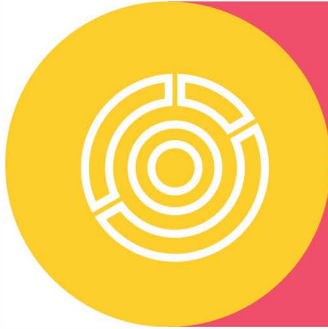
Escape rooms often require out-of-the-box thinking and creativity to solve puzzles. Participants are encouraged to think innovatively, combine different ideas, and find unconventional solutions. Developing creative and innovative thinking in an escape room context can inspire individuals to bring fresh perspectives and ideas to SDG-related challenges.

It's important to note that while escape rooms can provide an enjoyable and immersive environment for skill development, they should be complemented by real-world experiences, education, and engagement with SDG-related initiatives. This way, the skills developed in escape rooms can be effectively applied to the pursuit of sustainable development goals.

## 7.3 Proposed activities

The proposed activities are meant for the youth workers to implement them with young people, in order for them to develop the needed skills to effectively contribute to the achievement of the Sustainable Development Goals (SDGs). In the same time, these activities can also be taken as an inspiration to further create Escape Rooms games or activities to develop certain skills.

## SDGs' enigma



### Skill(s) target

Critical thinking

### Duration

Activity-50 mins  
Debriefing-10 mins  
Evaluation-5 mins



### Number of participants

25-30

### Materials needed

Small SDGs icons (16 pieces corresponding to the first 16 SDGs); there should be 5-6 icons of the 17th SDG





## Objectives and/or Learning Outcomes:

Activating participants brain into critical and logic thinking. Observing participants reactions under time pressure. Improving collaboration and time-management.

## Description of the activity



Participants will be split in groups of maximum 4 people and they will be asked to think and give the correct answer to 17 enigmas, each related to one of the SDGs. The enigmas will be given one by one, the groups will be aligned in a line and one person per team will have to, after deciding their answer with their group, reach as fast as possible to the facilitators and tell them their answer as only the first correct answer will be awarded. Thus, not only do the participants have to think critically and give the correct answers, but they also have to make it fast, in order to be the ones to get the prize. Whichever team responds correctly, will be awarded with the small icons of that specific SDG. Some questions will be double awarded and the icon of the 17th SDGs will be an extra point, going to all the teams in the end.

In the end, the big winner is the team that has the most SDGs gathered.

## Debriefing question



Which was the most difficult part?  
How they felt having to think critically under pressure?  
How was the group spirit?

## Description of the evaluation method of the activity:



Self reflection on what was the thinking process and its steps.

## Annex



1- In a village house with no electricity there are 7 brothers. The first one is reading, the second one is outside feeding the animals, the third one plays chess and the fourth one solves a puzzle. The fifth is preparing one food and the sixth is blowing a balloon. What is the 7th brother doing? (He is playing chess with the third one)

2-A vendor has 235 apples. 27 of them gone off. How many apples does the vendor have? (Still 235)

3-A man walks during the day on a trail 3 km and during the night he goes back 2. In how many days will he reach the end of the trail which is 10km long? (In the 8th)

4-7 musicians of an orchestra can perform the first part of the 5th symphony of Beethoven in 7 minutes and 23 seconds. In how much time will the orchestra perform the same symphony if the number of musicians doubles? (The same time)

5-The father and the son are in the same car and the 2 of them are involved in a car accident. The father dies and the kid gets to the hospital and has to undergo a surgery. The surgeon says: 'I cannot do the surgery. He is my son'. How is that possible? (The surgeon is the mother)

6-Where was the first ever fountain dug? (In the ground)

7-An electric train goes towards the south with 80km/h and the wind blows from North-West with 10km/h. In which direction does the steam go? (Electric trains do not produce steam)- double points, goes with 13

8-2 fathers and 2 sons find 3 treasures in the woods while hiking. Each of them gets one treasure. How is it possible? (Grandfather, father, son)- doubled with 16

10-A woman had two children who were born at the same time, on the same day and in the same year. But they weren't twins. How is it possible? (She adopted one of them)

11-There is a train with 180 people on it. At the next stop, 50 people get off, but 130 get on. At the next stop, 210 people get off and 40 get on. How many people are in the train? (90)- doubled with 9

14-A fish vendor caught 10 fish and he releases 2. How many fish does the man have? (8)- double points, goes with 12

15-How much soil is in a whole of 1 meter length and 30 cm width, dug in the middle of a field in South America?(kg) (0, cause a whole is empty)



## Building SDGs



### Skill(s) target

This activity aims to develop and improve the creativity skills of its participants.

### Duration

Activity-45 mins  
Debriefing-10 mins  
Evaluation-5 mins



### Number of participants

25-30 participants

### Materials needed

Building blocks/lego





## Objectives and/or Learning Outcomes:

Focusing on SDGs and their icons.  
imagination and creativity, team-work development

### Description of the activity



After dividing the group into teams of 4-5 people depending on the numbers of participants, they will be given building blocks and/or lego pieces and one SDG icon to recreate. After recreating that one, they will have to use the same materials and create another icon that would fit for that specific SDG. They will have to make it as interesting as possible.

### Debriefing question



How hard was recreating the icons?  
How hard was it to come with a new idea and agree to it as a team?  
Why do you feel the creation represents the SDG?



## Description of the evaluation method of the activity:



Each of the participants will have to evaluate how creative they felt during the activity, on a scale from one to ten and then to compare it to how creative they usually feel.

## Annex



## The three wise monkeys and an egg



### Skill(s) target

The main skill that this activity is aimed at is adaptability. Nevertheless, more skills will be improved, such as creativity, team work and patience.

### Duration

Activity-1 hour  
Debriefing-15 mins  
Evaluation-10 mins



### Number of participants

No maximum limit  
Multiple of 3

### Materials needed

Blindfolds  
Tape, Cardboard  
Headphones  
Eggs  
Cotton  
Different random materials (small tree branches, paper, cups, straws, balloons)





## Objectives and/or Learning Outcomes:

Facing different types of difficulties regarding communication and team-work, adapting to the situation and solving the task together, getting creative, being patient.

## Description of the activity



Using the idea of the three wise monkeys, the group of participants will be divided in teams of 3. One of the 3 will be blindfolded, one of the participants will not be able to talk, having tape, or covering their mouth with something and the third will have headphones with loud noise in their ears so they do not hear.

In this situation, as a team, they will have to use the materials provided and find a way to create a 'nest' for an egg so as by dropping the egg from a certain height, it will not break. The situation will be challenging and they will have to find a strategy and a means of communicating so that they complete the task successfully. They will have 35 minutes to create the egg 'nest'. When the time is finished, all the 'nests' will be collected and they will be dropped from height, seeing which one(s), if any, does not break.

## Debriefing question



For the debriefing part, the participants will be asked:

- How difficult it was to adapt to their condition.
- How they felt with the condition they were given.
- How they managed to communicate.
- What they wish to have done differently.

## Description of the evaluation method of the activity:



The evaluation will be done as a self reflection, giving the participants 10 minutes to write a small text on how they felt doing the task and if they feel or perceive things differently than before the activity.

## It's all connected



### Skill(s) target

The main focus of this activity is to develop system thinking skills. Systems thinking is applicable in a wide range of fields, from business and environmental management to healthcare and public policy.

### Duration

Activity - 60 minutes  
Debriefing - 15 minutes  
Evaluation - 5 minutes



### Number of participants

20-30 participants

Activity can be adapted to any number of participants.

### Materials needed

Projector  
Paper, pens  
SDGs printed copies  
Board pins  
Coloured strings (4 colours)  
Flipchart papers or Laptops





## Objectives and/or Learning Outcomes:

By the end of this activity, participants should understand the importance of thinking to a system as a whole. Systems thinking is a valuable skill that involves viewing the world as a complex web of interconnected elements and understanding how these elements influence one another within a broader system.

## Description of the activity



The facilitator sets up a board displaying all the SDGs, initiating the session with a brief introduction to the SDGs and highlighting the interconnected nature of these fields. Participants are then divided into four groups, each assigned to one of the four categories: Society, Environment, Culture, and Economy. Within their teams, participants use colored strings to connect the SDGs they believe belong to their assigned category. The facilitator guides the activity, explaining and adjusting connections as needed. The facilitator should highlight that there are other ways to categorize the SDGs and through system thinking it's easier to find patterns within a bigger picture.

For this activity, the SDGs are categorised as follows:

- Society: SDG 1, 3, 7, 11, 16
- Environment: SDG 6, 13, 14, 15
- Culture: SDG 4, 5, 17
- Economy: SDG 2, 8, 9, 10, 12

In the second part of the activity, participants collaboratively create a mind map to illustrate the connections between the SDGs. They should focus on answering WHAT, WHY, WHEN, WHERE, AND HOW? As the mind map evolves, participants should draw lines linking issues across various branches and emphasize feedback loops. The goal is for the map to appear intricate and complex. If there are differing opinions within teams, participants are encouraged to highlight these disagreements directly on the map.



Participants can use online tools such as MindMup ([www.mindmup.com](http://www.mindmup.com)) for this part of the activity, allowing for collaborative virtual mapping or flipchart papers. Encourage them to use drawings, symbols or logos. Once the maps are complete, teams present their visualisations to the entire group, explaining the rationale behind their connections and addressing any disagreements that emerged during the mapping process. This activity promotes a deeper understanding of the interplay between SDGs within and across different categories.

### Debriefing question



1. How did your team decide which SDGs belong to your assigned category?
2. Were there any challenges or disagreements during this categorisation process?
3. Were there any advantages or challenges to using tools like MindMap?
4. In what ways did this activity help you understand the concept of system thinking?
5. How might the principles of system thinking apply to real-world issues beyond the scope of the SDGs?

### Description of the evaluation method of the activity:



Reflection (5 minutes) - Have an open conversation with them sharing what they felt they learned and also make a short recap of the skills they should have achieved.



# Time Matrix



## Skill(s) target

The main skill achieved with this activity is time management. Aside from this, there are other skills developed during this activity: team work, prioritizing, planning and stress management

## Duration

Activity - 50 min  
Debriefing -15 min  
Evaluation - 5 min



## Number of participants

20-30 participants

This activity can be adapted to any number of participants.

## Materials needed

20-25 boxes ( 4 boxes per team)  
A printed clock to put in the middle of the room  
Glue, paper, scissors, pens





## Objectives and/or Learning Outcomes:

Time management is a fundamental skill that plays a pivotal role in personal and professional success. Through these challenges, participants will develop their ability to allocate their time effectively, make decisions based on deadlines, and work collaboratively to achieve their goals within set timeframes.

## Description of the activity



The activity begins with a clock positioned on the floor in the center of the room, resembling the one featured on the puzzle board, serving to underscore the concept of time. The clock's hour markers, which indicate the directions in which the puzzle pieces are concealed, can be adjusted to correspond to the duration of the session, ensuring that participants are provided with a time constraint for completing the treasure hunt. For instance, if the activity commences at 13:00, the last puzzle box may be placed on the floor at 13:40, aligning with the clock on the ground. Given that each team comprises five individuals, each team's puzzle boxes will be placed in the room at varying times compared to other teams. For instance, if Team 1 has their second box placed at 14:45, Team 2's second box will be placed at 18:00.

There are four stops in this activity:

**1st stop** - How long is a minute? - for this stop, participants will be asked to close their eyes and on the count of 3, start to count down a minute. When they think one minute passed, they should open their eyes. Naturally, people will be opening their eyes at different times.

**2nd stop** - Prioritizing Scenario: You are embarking on a business trip to another country and can only carry seven items from the following list: your favorite pillow, underwear, travel documents, headphones, food, money, towels, laptop, phone, charger, cleaning products, car keys,



toothbrush, sunglasses, work agenda, suits, tablet, and presents for others. Begin by individually creating your own lists, then attempt to reach a consensus and formulate a shared list. The next treasure can be found at a specific time.

**3rd stop** - Planning Scenario: It's your co-worker Paolo's birthday, and as a team, you want to arrange a surprise birthday party for him at the office on the busiest day of the week. Despite having a multitude of tasks to complete by the end of the day, your goal is to plan the entire day so that by 18:00 (starting from 09:00), when the program concludes and Paolo returns from his business trip to drop off some documents at the office, all tasks are finished, a cake and champagne have been procured, candles are ready, a present is prepared, someone has picked him up from the airport, and everyone is poised to surprise him. You have a 10-minute window to plan everything, and the challenge is to determine who is the most effective birthday planner among you. Now it's ... o'clock.

#### **4th stop** - Stress management

It's time to take a break! This stop is to make you slow down a bit and, in the rush of being 'the best', to focus on your mental health. We often forget how important it is to take a step back and listen to our bodies. You are 5 in the team. In turns, 4 of you will 'travel' with the Train of massage (make a line and each of you massages the back of the person in front), while the fifth will practice correct breathing:

1. Sit in a relaxed position or lie flat on a comfortable surface.
2. Relax your shoulders.
3. Put one hand on your chest and one hand on your stomach.
4. Breathe in through your nose 4 times and hold it for 2 seconds. While breathing in, make sure your chest remains flat, while your stomach expands.
5. Press gently on your stomach and exhale through your lips 4 times.
6. Repeat for 2 minutes.

Every 2 minutes switch, so that each of you learns how to breathe correctly.

If you are well organized, in the 10 minutes that you have, the whole team should feel refreshed.

Time flies very fast. Your treasure hunt ends at ... o'clock.

The instructions for each stop should be each in a box, together with random 3 pieces of the puzzle. The boxes are scattered around the room/place, hidden in a spot, in the direction of a specific hour (the one written on the instructions, decided by each person in charge), taking into consideration the clock that is placed in the middle of the room, the same that they have on the puzzle board. After finishing the task in each stop, participants should take the puzzle piece and keep it until the end.

Each stop should be for 10 minutes with a total of 40 minutes.

## Description of the activity

### Debriefing question



1. What is their understanding of time? Not only is this activity a fun opener, but it also helps to show how we often perceive time differently.
2. What were the most challenging aspects of managing your time during the activity?
3. How did you prioritize your tasks and make decisions based on the time constraints provided in the scenarios?
4. Did you encounter any unexpected obstacles or distractions that affected your time management? How did you deal with them?
5. Were there any moments where you felt you could have used your time more efficiently? If so, what would you do differently next time?



## Description of the evaluation method of the activity:



Reflection (10 minutes)-Have an open conversation with them sharing what they felt they learned and also make a short recap of the skills they should have achieved.

## Annex



Eisenhower matrix:

	Urgent	NOT Urgent
Important	<p><b>DO</b></p> <p>Tasks with clear deadlines and significant consequences if not completed in a timely fashion</p>	<p><b>Schedule</b></p> <p>Tasks with no set deadline but that bring you closer to your long-term goals.</p>
NOT Important	<p><b>Delegate</b></p> <p>Tasks that need to get done, but don't need your expertise in order to be completed.</p>	<p><b>Delete</b></p> <p>Tasks that distract you from your preferred course, and don't add any measurable value.</p>

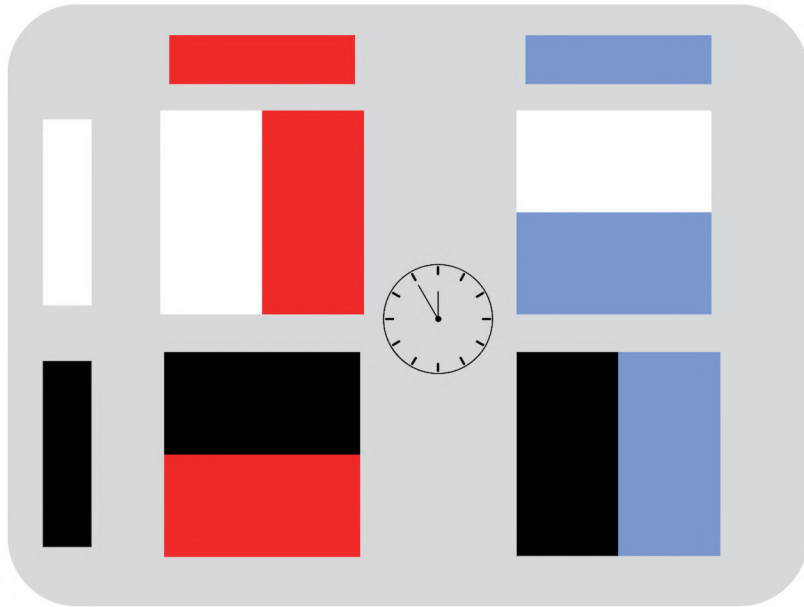




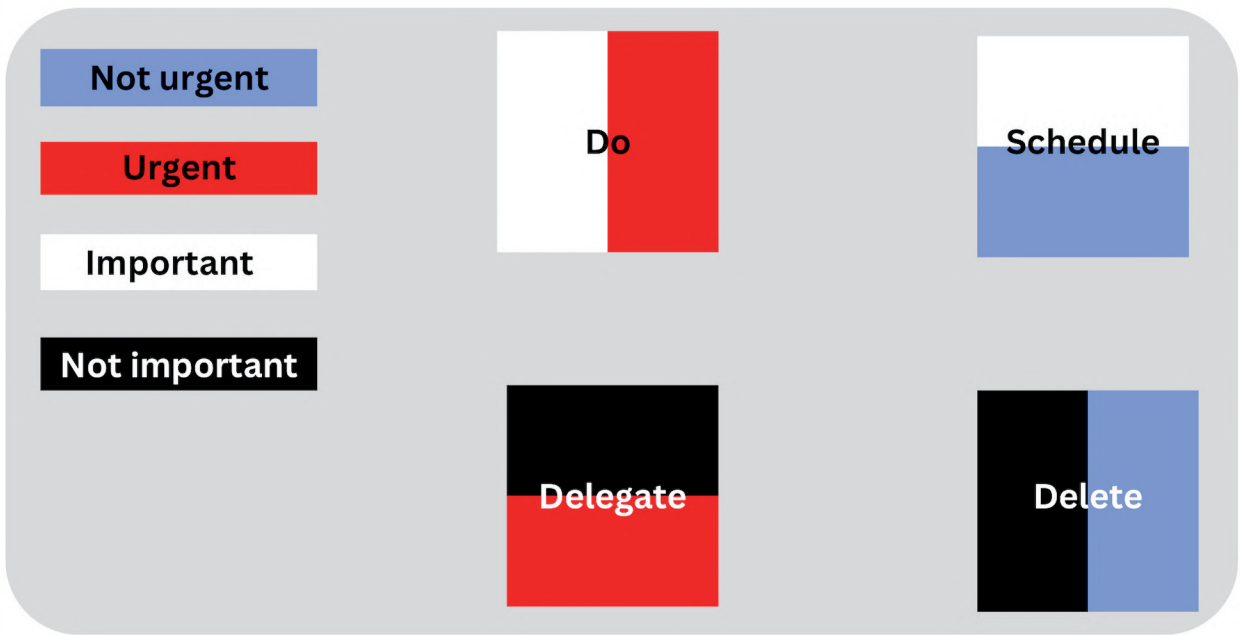
# Annex



Puzzle board:



Puzzle pieces:



## Ay, ay Capitan!



### Skill(s) target

The aim of this activity is to provide participants with a challenging environment that fosters the growth and refinement of their leadership skills. In addition to honing leadership abilities, the activity is designed to cultivate essential side skills, including effective communication, team building, and craft skills.

### Duration

Activity - 50 minutes  
Debriefing - 10 minute  
Evaluation - 5 minute



### Number of participants

20 participants

### Materials needed

Colored paper (at least 3 different colors)  
Leadership styles (annex)  
Scissors







## Objectives and/or Learning Outcomes:

The foremost goal is to provide participants with practical experiences that challenge and refine their leadership capabilities. Through engaging activities, individuals have the opportunity to demonstrate initiative, make decisions, and guide a team towards a common goal.

## Description of the activity



The activity will begin with a short introduction about leadership and why is it important to develop this skills. Next, the trainer will divide the participants into 4 teams. Each team has 3 minutes to decide who is going to be the team leader. Trainer will take the 4 leaders outside of the room and will explain the further steps.

The objective of the activity is to construct 40 paper boats within a 20-minutes, with a unique twist—leaders cannot physically assist in crafting the boats, and the boats must remain upright. Leaders are solely permitted to instruct their teams on boat creation and delegate the number and colors of boats for each member. For instance, Member 1 might be tasked with crafting 5 red boats, 2 green boats, and 3 blue boats. Additionally, leaders must interact with team members using one of four leadership styles, such as acting democratically with Member 1 and autocratically with Member 2.

All this information will be conveyed to the leaders while they are outside the room. The facilitator can use a tutorial video (<https://www.youtube.com/watch?v=-nNmOpCdF7I>) to demonstrate paper boat construction. Leaders will also have five minutes to learn how to make the paper boats and familiarize themselves with the characteristics of each leadership style.

Following this preparation, leaders must return to their teams and relay the information and details. The victorious team will be the one that uses the least amount of paper (smaller papers resulting in smaller boats) and successfully crafts 40 standing paper boats.

## Debriefing question



1. Did the Team Leader clarify the goal to the team members?
2. Were the roles clarified so that everyone on the team would know who would do what?
3. Did the team members get overwhelmed by the activity or understand what is important?
4. How does it feel to behave differently with each of the members?
5. How was it for the members to have different treatments? DO you see a difference or correlation between performance and a leader's style?
6. What style of leadership did the team leader play?
7. Did the team members ask for clarification about their role or goal?
8. How can they relate "boat making" to "doing work" in the organization?

## Description of the evaluation method of the activity:



Reflection (5 minutes)-Have an open conversation with them sharing what they felt they learned and also make a short recap of the skills they should have achieved.

## Annex



<https://www.youtube.com/watch?v=-nNm0pCdF7I> - Paper boat video

### Styles of Leadership

#### 1. Autocratic Leadership

History figures: Adolf Hitler, Napoleon Bonaparte, Queen Elizabeth I, and Vladimir Putin

Characteristics:

- Makes most if not all decisions, leaving little if any room for feedback.
- The environment tends to be highly structured to the point of being rigid.
- Clearly defined rules and processes.
- All determination of policy is by the leader.
- The dominator is “personal” in his praise and criticism of each team member’s work, but is aloof from active group participation, except when demonstrating. He is friendly or impersonal rather than openly hostile.

#### 2. Democratic leadership

History figures: General Dwight Eisenhower and Nelson Mandela

Characteristics:

- All policies were a matter of group discussion and decision, encouraged and assisted by the leader.
- Activity perspective was gained during the first discussion period. General steps to group goal were sketched, and where technical advice was needed, the leader suggested two or three alternative procedures from which a choice could be made.
- The members were free to work with anyone, and division of tasks was left to the group leader.
- The leader was “objective” or “fact-minded” in his praise and criticism and tried to be a regular group member in spirit without doing too much of the work.

### **3. Laissez-faire leadership**

History figures: Warren Buffett, Queen Victoria, Theodore Roosevelt, and Andrew Mellon, Steve Jobs

Characteristics:

- Complete freedom for group or individual decision, without any leader participation
- Various materials supplied by leader, who made it clear that he would supply information when asked, but took no other part in work discussions
- Complete nonparticipation by leader
- Very infrequent comments on member activities unless questioned, and no attempt to participate or interfere with the course of events

### **4. Transformational Leadership**

History figures: Mother Teresa, Martin Luther King, Greta Thunberg, Elon Musk, Barack Obama

Characteristics:

- Understanding what needs to change.
- Ability to stimulate the intellect.
- Knack for encouraging participation.
- Talent for genuine communication.
- Loyalty.
- Sense of the bigger picture.
- Personal integrity.
- An inspiring bearing/presence.

## Voices of the hands



### Skill(s) target

The target skills of these activity are communication and collaboration. Participants are invited to enhance these skills because they are crucial for building strong relationships, fostering teamwork, and achieving collective objectives.

### Duration

Introduction - 5 minutes  
Activity - 50 minutes  
Debriefing -10 minute  
Evaluation - 5 minutes



### Number of participants

20-30 Participants

### Materials needed

SDGs Puzzle (annex1)  
Locks ( as many as the number of teams)  
Boxes (As many as the number of teams)  
Printed riddles  
Scarf for eye binding ( As many as the number of teams)





## Objectives and/or Learning Outcomes:

Voices of the hands is designed with a clear objective in mind: to enhance communication and collaboration within teams and between teams. It aims to improve the flow of information, and establish a shared sense of purpose among team members.

## Description of the activity



The session begins with the facilitator setting up the room, and arranging individual tables for each team, each equipped with riddles and a locked box. Inside these locked boxes, teams will discover fragments of a larger puzzle. The primary goal of this activity is to promote effective communication and collaboration both within teams and across teams. To facilitate this, the puzzle pieces contained within each box are designed to be components that other teams will require. For instance, Team 1 might be responsible for assembling the first three SDGs, while Team 3 could possess the puzzle fragment necessary to complete Team 1's image.

Subsequently, the facilitator divides the participants into 4-5 teams based on the group size. Before starting the game, each team designates one member to be blindfolded for the entirety of the activity, serving as 'The Hands' of the team. Throughout the activity, 'The Hands' are permitted to physically interact with and assemble the puzzle pieces while the remaining team members solely provide guidance through verbal communication.

The initial challenge for participants is to solve the riddles in order to unlock their box. Once unlocked, they discover the puzzle pieces inside. It's important to note that only 'The Hands' can handle the items on the table. After each team successfully assembles their individual puzzles, the subsequent phase necessitates cooperation among teams to construct the larger overall image. Again, 'The Hands' are the sole individuals allowed to physically manipulate the puzzle pieces while being directed by their teammates.



## Debriefing question



1. What were the most significant communication challenges your team faced during the activity, both within your team and when collaborating with other teams?
2. How did the role of 'The Hands' affect the dynamics of your team? How did it impact your ability to communicate and collaborate effectively?
3. What strategies did your team employ to ensure that 'The Hands' accurately understood your guidance and instructions? Did you encounter any challenges in this aspect?
4. How “ The Hands” felt being blindfolded and listening to the other teammates?

## Description of the evaluation method of the activity:



Reflection (5 minutes) - Have an open conversation with them sharing how they felt and what they learned, a feedback over the activity and a short recap of the skills they should have achieved.



## Annex



Riddles (Depending on the numbers needed for the lock) :

1. I am one less than a dozen. What number am I?

Answer: 11

2. I am the number associated with the basic building block of matter. What number am I?

Answer: 6 (Atomic number of carbon)

3. I am the number of continents on Earth. What number am I?

Answer: 7

4. I am the square of 4. What number am I?

Answer: 16

## SDGs Puzzle





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## SDGs Escape Room 1



Name of the game/activity: The Conspiracy Room

Topic: Tackling societal issues related to poverty, health access, polluted cities, lack of renewable energy, and injustice and corruption.



Learning objectives:

- To raise awareness about the United Nations Sustainable Development Goals (SDGs) and the role of individuals in achieving them, especially SDG1, 3, 7, 11 and 16.
- To enhance problem-solving and critical thinking skills.
- To encourage teamwork and collaboration.

Materials and approx. budget:

- Pen & Paper
- 1 Piggy Bank
- 1 First Aid Kit
- 1 Electrical Box
- 1 Box in the shape of a house
- 1 bird cage
- 1 Briefcase
- 1 key
- 3 locks with 4 numbers code
- 1 lock with 3 numbers code
- 1 lock with 5 letters code
- 1 direction lock
- 2 batteries
- 3 coins (1 cent, 2 cents, 5 cents)

- 1 magnifying glass
- 1 invisible ink pen with UV light
- Printed materials (check the QR code)

**Props:**

- coins for the piggy bank
- empty blisters and any other medical material for the First Aid Kit
- small solar panel for the electrical box
- plastic dove toy and plastic hammer toy for the cage

**Approx. budget:** 200 €



Location: Indoor

Size of the group: 4-8 people



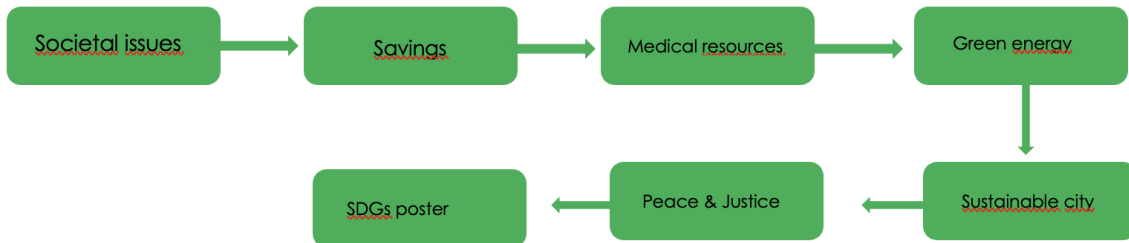
**Mission:** You are a team of activists who have infiltrated the room of a group of powerful conspirators who are planning to perpetrate heinous crimes that threaten the world. You are searching for evidence to expose the conspiracy when you suddenly realise that the room is booby-trapped, and you have been locked inside. You have 60 minutes to save the world of poverty, diseases, pollution, injustice and corruption. You'll need to find evidence that will expose the conspiracy that they have hidden the Sustainable Development Goals from the entire society. However, you must do so before the conspirators return and catch you. The fate of the world is in your hands!



### Role of the game master:

The game master will explain the rules, ensure the safety of the players, and provide hints where necessary and lead the debriefing.

#### Flow chart: Linear



### Challenges:

1. Find the societal issues the world faces, because of the conspirators.
2. Find where the conspirators keep their savings.
3. Find where the conspirators keep their medical resources.
4. Find where the conspirators are hiding their research on green energy.
5. Find where the conspirators are hiding the map of a sustainable city.
6. Release the peace dove and find justice!
7. Find the SDGs, place them in order and Escape!

### Puzzles:

1. On the walls of the room there will be quotes referring to the societal issues, according to the SDGs and with an invisible ink pen will be written on them the numbers, indicating the order of the boxes that need to be opened.  
 SDG1: "You can't get rid of poverty by giving people money." – J. O'Rourke – **1 – indicating the 1<sup>st</sup> box to open - Piggy Bank**  
 SDG3: "Where you live should not determine whether you live, or whether you die." — Bono, lead singer of U2 and founder of (RED) and ONE – **2 – indicating the 2<sup>nd</sup> box to open - First Aid Kit**



SDG7: "The use of solar energy has not been opened up because the oil industry does not own the sun." — Ralph Nader – **3 – indicating the 3<sup>rd</sup> box to open - Electrical box**

SDG11: "We need more insurgency in the city in order to break unsustainable and privatising patterns of urban development." Jeffrey Hou Nader – **4 – indicating 4<sup>th</sup> box to open - House box**

SDG16: "Until the great mass of the people shall be filled with the sense of responsibility for each other's welfare, social justice can never be attained." - Helen Keller Nader – **5 – indicating the 5<sup>th</sup> box to open - Cage**

In the room there will be 3 coins (1 cent, 2 cents, 5 cents), indicating the code to open the piggy bank – **125** (from the smaller size to the bigger)

2. In the Piggy Bank there will be 2 papers – indicating the code **3123** to open the First Aid Kit. They will also find a small square with the SDG1.
3. In the First Aid Kit there will be 2 papers indicating the code **2279** to open the Electrical Box. They will also find a small square with the SDG3.
4. In the Electrical box there will be an infographic with information regarding SDG7 and 2 batteries that will indicate the code **1932** to open the House Box. They will also find a small square with the SDG7.
5. In the House box there will be a puzzle with a photo from Singapore which will indicate the code SNGPR to open the cage. They will also find a small square with the SDG11.
6. In the cage will be 2 papers indicating the direction code **DOWN-RIGHT -UP – RIGHT** to open a briefcase. They will also find a small square with the SDG16.
7. In the briefcase there will be the key to open the door, where will be the **key** to open the door and the SDGs poster. They need to put the 5 SDGs missing, in order on the poster, unlock the door and show to the GM the completed poster.



## Settings:

### **Placement of puzzles and props:**

- Papers with the SDG quotes (1-6) on the walls with invisible ink pen numbers indicating the order of boxes to open*
- *Piggy Bank containing some coins inside and the papers 7-8 and 9 as a small square plastified*
- *First Aid Kit with some blisters inside and with the papers 10-11 and 12 as a small square plastified*
- *Electrical Box with infographic on SDG7, 2 batteries, with the papers 13-14 and 15 as a small square plastified*
- *Box in the shape of a house with a puzzle representing a photo of Singapore (19) and with the papers 16-17 and 18 as a small square plastified*
- *Bird cage with a dove toy and with the papers 20-21 and 22 as a small square plastified*
- *Briefcase with a key to open the door and the SDGs poster (23)*

**Time of preparation per person: 30 min**

## Hinting:

The game master will provide hints where necessary, and the players can ask for up to 7 hints, one for each challenge.

Hint 1: Look around Are the SDGs spinning? Maybe you'll see clearer in the dark!

Hint 2: The piggy bank just accepts the coins in the correct order.

Hint 3: Have you checked all the faces?

Hint 4: Did you find out the first 2 numbers? You are just missing Covid...when did it start?

Hint 5: what's your energy level? Check your batteries!

Hint 6: If the puzzle is not enough to discover one of the most sustainable cities in the world, find the arrows.

Hint 7: Have you found the arrows? What about their order?



## Debriefing:

- How did you feel during the game? Did you experience any challenges or frustrations?
- Did you feel like the game was engaging and kept your attention throughout?
- Which challenge was the most difficult for you? Why?
- What strategies did you use to solve the challenges?

- Did you feel like you worked well with your team during the game?
- Were there any moments where you felt like you were close to giving up? How did you overcome that feeling?
- Did you learn anything new or interesting during the game?
- What could have been done differently to improve the game experience?
- Did the game inspire you to think more about the societal issues it touched on?
- Overall, what did you think of the game and would you recommend it to others?
- How did the game help you learn about the SDGs?
- Did the game change your understanding of any particular SDGs?
- Which SDGs do you think are the most important to address in today's world, and why?
- How might you apply what you've learned about the SDGs in your own life or community?
- Did the game make you more aware of the global challenges we face as a society?



## SDGs Escape Room 2



Name of the game/activity: Where is Alex?

Topic: Environment and Sustainable Development Goals



Learning objectives:

1. Learn about the UN Sustainable Development Goals, particularly about Goal 6, Goal 13, Goal 14 and Goal 15 of.
2. Learn what you can do home for a sustainable future (recycle, buying locally, go paper less, etc.)
3. Learn about common animals that are in danger because of global warming and deforestation.
4. Learn about the most used words when talk about environment

Materials and approx. budget:

Challenge 1:

Introduction paper.

Suspects papers (can be 3 or 4).

Marker

Paper tape

Puzzle 1:

- Two-sided printed paper which will be cut in puzzle pieces (one side SDGs, the other side map of the city)
- Magnifying glass
- Trash can
- Ripped paper with to do list

Puzzle 2:

- Box
- 4-digit lock.
- 3 printed papers with holes
- Paper with letter corresponding to numbers

Challenge 2:

Posters with random word search on the walls

Puzzle 1:

- Box
- 3-digit lock
- Paper with list of endangered animals

Challenge 3:

- Poster with endangered and not endangered animals
- Pushpins

Challenge 4:

- Puzzle 1:
- Box (big enough to add two locks)
- two locks with keys
- Locked phone
- Another phone to send the messages
- Note from Alex

Other decoration if you want to make the room look like a home office\*

\*It is not necessary but can help with the immersive feeling for the participants.



Location : **Indoor**

Size of the group: Small group (max. 6 persons)



Mission: Find what happen to Alex.

Narrative\*:

What happened with Alex? You are wondering who Alex is and why is he important. Well, he is just a regular person. But something is special about him, his dedication for sustainability. He works everyday to help the SDGs, doing normal task that can be done by everyone.

He knows that even if you are a regular person you can help, by learning, staying informed and helping the community.

But something bad has occurred, Alex is missing, nobody knows about him. Maybe they are lying and tried to stop him from his mission. There are a lot of bad actors in the world.

This is where you are coming into action. You are on the mission to solve the case and to make sure the guilty person is found.

You need to work together to find what happened.

Do you have what it takes to become a detective and find the truth?



Role of the game master\*\* :

The game master will explain the rules, ensure the safety of the players, and provide hints where necessary and lead the debriefing.

Flow chart\*\*\* :

Linear flow:

Arrive, read the note from Tom. The goal is to find what happened with Alex.

Find the first puzzle piece and start searching for the rest.



Find the first box and put the combination from the puzzle. The clues for puzzle 2 and the first key are in the box.

Use the clue in the post for the posters with wordsearch

Use the results to open the second box. The clue for next puzzle are in the box with the second key.

Use the clues for the puzzles with the animals on the wall. The result will be the combination for the phone.

Use the two keys to open the last box and find the phone and the note from Alex. Open the phone using the combination from challenge 3.

Find the truth about Alex.

Knock on the door to tell the game master the answer and see if you win



#### Challenges :

##### Challenge 1: Solve the puzzle

- Puzzle 1
- Puzzle 2

##### Challenge 2: Find the code to unlock the phone

- Puzzle 1

##### Challenge 3: Find the code to the box

- Puzzle 1

##### Challenge 4: Find the truth

- Puzzle 1

When the participants enter the room the group finds a piece of paper in the middle of the room. The paper is a message for Tom, the boss of the detective agency.

**Note:**

Hello all of you,

I am writing this note because someone has forgot again to pay the electric bills. (Karen). Anyways, all of you wished to become detectives. In order to prove yourself capable, solve your first case. A missing person case.

This is about Alex, a simple guy. He dedicated his life to make the world a better place. When he heard the news in 2016 of the creation of the Sustainable Development Goals (SDGs) he changed his live to work towards the goals every day.

But not everybody is like Alex, some people do not believe in global warming and wants to destroy the ecosystem. Because of this people, Alex started to get threats for his life.

In the present, Alex is nowhere to be find and the suspects are the owners of the companies that he visited often.

Find where Alex was before his disappearance and who last saw him.

I am leaving you with a list of suspects.

If you discover what happen to him, knock on the door three times and tell the bodyguard. if you are correct, congrats, you proved you are good enough for this job.

You are not allowed to leave this room until you uncover the truth or until you are out of time.

You have one hour. Good luck and start searching.

Ps: EVERYTHING Alex does in a day is towards an SDGs.

**Challenge 1:**

**Puzzle 1:** What can you do every day?

Cut the paper in the shape of a Jigsaw puzzle and hide each around the room. Leave the first peace somewhere where is easy to see so they can know where to start.

Stfick one piece of the puzzle magnifying glass with paper tape and hide them.

Write a to do list where to go today on a piece of paper from an agenda or a notebook.

### **Things to do today**

1. Take compost and materials that can be recycled to the recycling centre.
2. Go to bank to change my bills from coming printed by post and set up the app instead.
3. Go to local cleaning event in the central park.
4. Go to local market to buy ingredients for dinner (do not forget produce bag).

Also add on the paper  $14=5$  to help them for puzzle 2  
Rip the paper and crumble it and put in the trash can

Each activity on the list corresponds to something you can do every day for an SDG (hinted in the introduction paper).

Each place on the map where Alex went will have on the other side a specific SDG which will correspond to the number.

### **Puzzle 2:** Follow the steps.

Put in the first box:

The clues for puzzle 1 challenge 2 (see challenge 2 puzzle 1 for more indications)

The first key

The papers with holes

Leave the box in plain sight.

The participant needs to use the magnifying glass to follow the track of Alex on the map, corresponding to list in the trash.

The solution for the 4-digit lock will be the order of the SDG. For the SDG that are 2 number, they need to add them to form only one.

### **Challenge 2:**

#### **Puzzle 1:** What is the definition?

Stick the poster with random word search on the walls. Some of the words should be the definition of ecology, recycling, environment.

Write as a title for each poster the word that the definition is for, write the same word on each page for the papers with holes.



Add an arrow on each paper with holes towards a letter.

If the participants put the papers over the posters the sentence formed will be a short definition of the word

In the box for challenge 1 puzzle 2 they will find paper with holes and the title of each word. If they put the paper over the poster on the walls the arrow marked will show towards a letter.

With the help of the second paper the letter will correspond to one number, in order the code will be the code to unlock the second box

The box should contain:

The second key

clue for puzzle 1 challenge 3:

The clue will be a list of animals. Each line written on the clue will have several endangered animals depending on the number you want to result in.

For example, for number 7 will be three animals corresponding to each point.

### **Challenge 3:**

**Puzzle 1:** What animals are endangered?

On the walls will be a poster with endangered and not endangered animals. On the bottom of the poster will be written "FOLLOW THE LINES"

Each animal will be a point on the poster. For the first number you can add pins into the poster to make it easier to understand.

### **Challenge 4:**

**Puzzle 1:** Who last saw Alex?

In the third box, which had two locks with keys. The box contains:

The locked phone

The note from Alex

After they unlock the phone, they can read the latest messages received. The messages give indication what happened to Alex and why he disappeared.

### **Finality:**

After they solve the last puzzle and open the box they find a phone, and a note

The note is from Alex:

My dearest,

This is my emergency phone. I am texting to this number everything I do in case something happen to me.



I created all this puzzle to make sure nobody put their hands on the phone who is not willing to make the world a better place and to learn about SDGs.

The texts on the phone are (you can leave the messages from a different phone and mark them unread)

I am going to the recycling centre.

I meet my friend Mark, the owner of the recycling centre. He wants to join me in the local cleaning.

I told him I need to go to bank first, and we can meet after.

The people at the bank are bad they really don't want people to become paperless so they keep giving me excuses to why I shouldn't do it.

The bank manager, Ana is giving me angry looks, but I solved everything

On my way to go to the cleaning even. I remembered that I forgot my water bottle at the recycling centre.

I decided to go back and take my bottle.

On my way I was passing the plastic factory, then I was shocked to see Mark inside together with the director of the factory.

When I arrived at the recycling centre, I asked the people working if they why Mark was there.

They told me that Mark is selling the centre to build another plastic factory and produce straws.

When I heard this, I decided he needed to be stopped so I left the city in order to stop the production and go directly to the source.

Goodbye everybody you are now the next warriors to save the planet so make sure you are using the information learned for the good. I will send updates soon.

The participants knock on the door three times and tell the game master what happen and then they can leave.



Settings :

*The setting is a home office of a person who wants to works towards the SDGs.*

*The introduction note should be in the middle of the room, on a chair.*

*The jigsaw puzzle will be hidden in the room.*

*The first box should be in plain sight.*



*The poster with the animals on the walls  
The posters with the random word search on the walls  
The second and the third box should be hidden, in case they found it  
before they will not be able to open without solving all the puzzles.*

#### Hinting :

*(ex. What kind of hints should be given to players when they are stuck? How many? When to be given? – **remove after you complete**)*



#### Debriefing :

1. Describe your experience. How did you feel?
2. What did you learn?
3. Would you also encourage your friends to learn sustainability, environment and sustainable development goals?
4. What are your thoughts with regard to working in teams?
5. Why did the things go the way they did?
6. What did you learn from the puzzles?
7. What went well? What could be improved?
8. What would make these challenges represent a better experience?

## SDGs Escape Room 3



Name of the game/activity: **Travel back in time, no time to waste!**

Topic: Addressing culture throughout history, dealing with theoretical training issues as well as current social issues.



Learning objectives:

- Raise awareness of the United Nations Sustainable Development Goals (SDGs) and the role of people in achieving them, especially **SDGs 4, 5, 10, 16 and 17.**
- Discover the different eras of world history, and what took place in them.
- Promote the visibility of the role of women in history.
- Development of alternative communication channels.
- To learn from the past and apply it to the present, avoiding making the same mistakes, but fostering a culture of mistakes.

Materials and approx. budget:

- Printing of 14 folio size pages (later you can save and reuse them).
- A computer.
- A USB stick.
- A book, it doesn't matter if it's used.
- A sticker where to write.

To decorate:

- Boxes, books, folders, notebooks, sand, pens, any element that can be used to set the different spaces.

You can make it more minimalist, placing the name of the period, or if you feel like drawing, materials to recreate the spaces, for example: painting a mural in each period.



Location : Indoor

Size of the group : 2-4 participants



Mission:

Narrative\*:

The participants are a group of young scientists who have invented a time machine. By accident, they are transported to different historical times and need to overcome a series of challenges to return to the present.

First of all, they land in prehistoric times, where they must know concepts of biology to be able to jump to the next time: Egypt.

In Egypt they must forget their writing system and learn the one they used: hieroglyphics, that will give them the key to the next leap in time: the Renaissance.

Art and reinventing oneself floods this era, with wonderful works of art by men and women. One of them keeps the key to be able to travel to the present time.

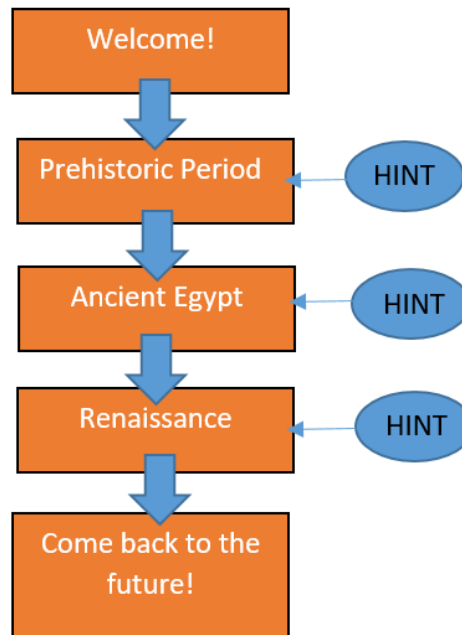
The last step, the most important, will have to recharge the time machine with kinetic energy and good vibrations, how? the last test is the key.



Role of the game master\*\* :

The role of the "game master" is to support the participants if they need help. It will be outside the room, and every time they ask for a hint/help, the participants will add 3 minutes to their counter (if you play with different teams you can have a competition). The clues will be given in the form of audio through walkie or telephone.

Flow chart\*\*\* :



Challenges :

1. Find the herbivorous dinosaur.
2. Translate from the hieroglyphic nomenclature the name of an artist.
3. Associate the name of the artist with the box to find the USB.
4. Connect the USB to the computer, and read the QR code. Dance and sing, the whole team so that the time machine has energy.

1. **Prehistoric Period:** a part of the classroom to make it look like a prehistoric cave, with cave paintings and primitive objects.

They must get the name of the dinosaur that is herbivorous. For this they will have different informative images of living beings grouped by theme, and each living being with its name. Once they know what it is, they will have to look for the name of that dinosaur in a library book, that book will be a hieroglyphic dictionary that will help them solve the following enigma.

Print materials:

[https://drive.google.com/file/d/15rDw5YSKLEldq4HJ4vLEFtMksBDDMyDi/view?usp=drive\\_link](https://drive.google.com/file/d/15rDw5YSKLEldq4HJ4vLEFtMksBDDMyDi/view?usp=drive_link)

**2. Ancient Egypt:** Create a section of the room that represents ancient Egypt, with hieroglyphics on the walls and a replica of a pyramid. We place a word which they must translate thanks to the dictionary they have obtained, this message will be written on a papyrus-shaped paper that the participants must solve to obtain a name. This name will be the name of a Renaissance artist: Sandro Botticelli.

Print materials (first page add inside the book with the name of the dinosaur. Second to the left is a table or wall. Advice: you can burn the frame of the document to recreate papyrus):

[https://drive.google.com/file/d/14TJwrSiOFBJGaUVsmQ-vrUImzVXXKXqh/view?usp=drive\\_link](https://drive.google.com/file/d/14TJwrSiOFBJGaUVsmQ-vrUImzVXXKXqh/view?usp=drive_link)

**3. Renaissance:** We transformed another part of the classroom into a workshop for Renaissance artists. We put up famous paintings, and the participants must select the painting that corresponds to the author of the name they had deciphered from the hieroglyph.

Painting: The Mona Lisa (Leonardo Da Vinci)

Sculpture: David (Michelangelo Buonarroti)

Painting: The birth of Venus (Sandro Botticelli). Behind the painting a USB stick

Painting: Las Meninas (Diego Velázquez)

Painting: Mary Magdalene as Melancholy (Artemisia Gentileschi)

Picture: The Concert (Judith Leyster)

Painting: Portia Wounding Her Thigh (Elisabetta Sirani)

Different degrees of difficulty: you can put USB in all the boxes (and those that are not correct put some joke inside). You can put the pictures without the name of the author or without the name of the title. Thus they will have to ask for a clue and have to associate with the painting they are looking for.

Print materials:

[https://drive.google.com/file/d/19mP2mbY8E6YUXF2M7JTby8Nq-OjKCSa0/view?usp=drive\\_link](https://drive.google.com/file/d/19mP2mbY8E6YUXF2M7JTby8Nq-OjKCSa0/view?usp=drive_link)

**4. Come back to the future!** A futuristic area with technological elements, LED lights and interactive screens. They must insert the USB into the computer, and when they open it they will find the image of a QR code, which they must scan with a mobile. That QR will lead to a song which they must play, sing and dance so they can finally leave the room. The song is "La Macarena", a performance made at André Rieu's classical music concert with Los Del Rio, showing that you can mix and innovate.

No print, add to the usb:

[https://drive.google.com/file/d/1qkFzxAx4tZUzIFWNnvvqk\\_iXOPXsq7RQ/view?usp=drive\\_link](https://drive.google.com/file/d/1qkFzxAx4tZUzIFWNnvvqk_iXOPXsq7RQ/view?usp=drive_link)



#### Settings :

- Printing of the 4 groups of animals (they are available in the drive). You can put more posters to dismiss.
- Put a sticker with the name of the dinosaur on any book you have. Put it next to other books, either on a shelf or scattered around the room. Inside the book that contains the sticker, add the hieroglyphic alphabet (available on the drive).
- Printing of all the pictures (with or without the names depending on the degree of difficulty). The pictures are in the drive for printing.
- Behind the painting "The birth of Venus" paste the USB. For greater difficulty, put other USBs in other boxes.
- Within the USB you must save the image that has been designed, available on the drive in this tab.

*Time of preparation: 40 minutes*

1. **Prehistoric Age:** On each poster/card there will be examples of animals in that category, including dinosaurs. In this way they will know the concepts and they will know which dinosaur is the herbivore. **Hint:** *"this living being would have no problem seeing the stage is a concert"*

2. **Ancient Egypt:** Inside the book there is a sheet with each symbol translated into a character of the Latin alphabet, so they must be patient and translate letter by letter. Once they have the name they will have to travel to the time of the Renaissance. **Hint:** *"it's first and last name, not only name"*.

3. **Renaissance:** The paintings must have the title of the works, they can have the names of the artists, but if we want to make it a bit complicated, we can exhibit the paintings without the names of their authors, and give the **hint** *"if you needed help in love you should go to her"*.



#### Debriefing :

- *Prehistory: they knew the different types of living beings, about how they are born, and how they are grouped according to what they eat. Do you know people can be vegetarian? vegans?*

- *Ancient Egypt: currently there are languages that use characters, one of the first cultures was the Egyptian to create the so-called hieroglyphs. What other languages do you know that use cracaters different from Latin ones?*

- Renaissance: most of the artworks we know of are by male artists, but in this game there were female artists. Do you know any female artists? Could you name any work in the history of female artists in any field? With this we make visible the figure of women and the concept of equality.

Generally:

- Does it make sense that all the participants have collaborated?
- Do you think someone has taken the role of leader?
- Do you think that someone has imposed their criteria and did not let you participate?

## SDGs Escape Room 4



Name of the game/activity: EmployTech: The Employability Code Challenge

Topic: Economy - Crack the Future of Work in Industry 5.0!  
The necessary skills for a more sustainable economy.



Learning objectives:

- Understand the key principles of employability in Industry 5.0
- Realise the importance of human-centric skills development
- Reflect on the future of work and workplace
- Apply critical thinking and problem-solving skills
- Practice teamwork and collaboration
- Realise the importance of all the above for a more sustainable economy

Materials and approx. budget:

- Posters on the wall
- QR CODES cards
- Quiz
- Envelopes with riddles
- Circular Economy Crossword
- Box with 3 digit padlock
- USB stick
- Drawer with lock
- Laptop / Computer
- Puzzle pieces
- Board
- Pens
- Paper





Location: Indoors, state-of-the-art employability escape room

Size of the group: min 3, max 20 (most recommended 5-15)




**Mission:** Your goal is to accomplish a series of tasks and puzzles within the escape room in order to discover the essential principles of employability in Industry 5.0. Each challenge will put your knowledge, talents, and adaptability to the test in the context of a changing workplace. You will need to work together with your team to decipher clues, solve puzzles, and unlock hidden compartments to progress towards the ultimate goal of escaping the room. Can you prove your employability to Dr. EmployTech and acquire a position at his company?

**Narrative\*:**

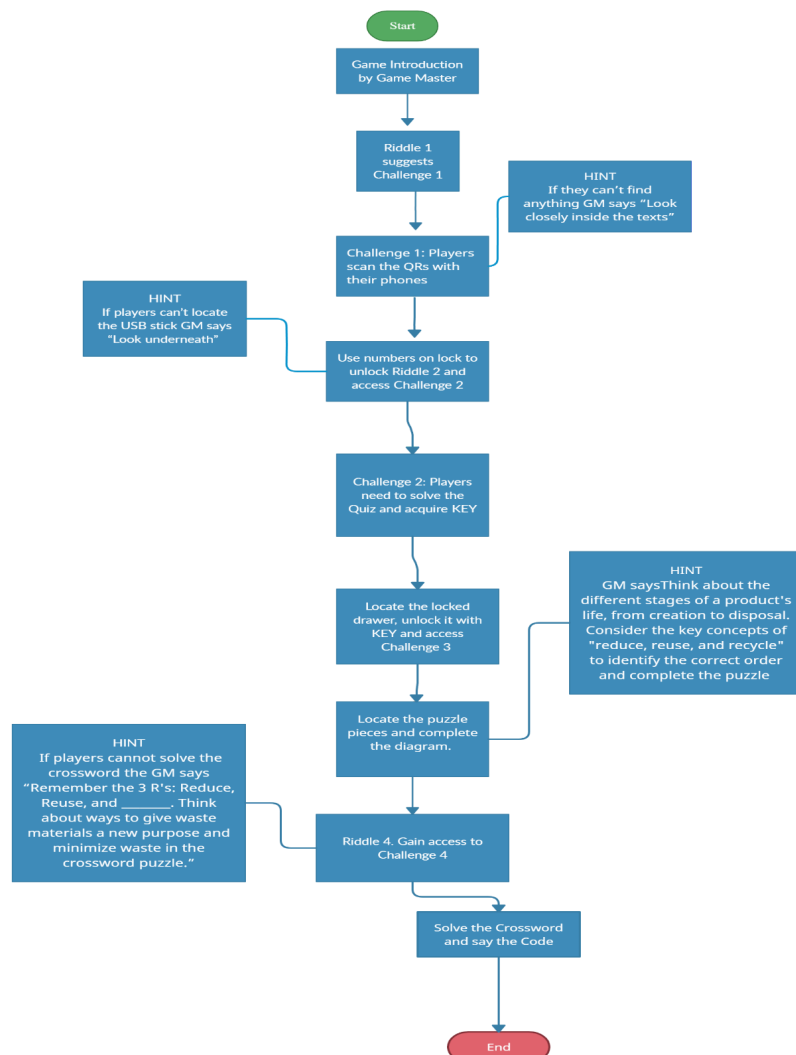
You are a group of young and talented engineers who have been invited to participate in an exclusive opportunity at the renowned "EmployTech Industries." This cutting-edge company is at the forefront of the Industry 5.0 revolution, where advanced technologies and human-centric skills are shaping the future of work. Upon arrival, you are greeted by the eccentric Dr. EmployTech, the founder of the company. As aspiring job seekers, you wish to become part of his team, but to do so you must first prove your skills by completing a series of challenges in his state-of-the-art employability escape room. Your mission is to crack the code and prove your employability to Dr. EmployTech. As you enter the escape room, the door locks behind you, and the countdown begins. You are immediately immersed in a high-tech environment, filled with interactive gadgets, virtual simulations, and futuristic technologies. Dr. EmployTech's voice guides you through the challenges, providing hints and encouragement along the way. You and your team must work together, using your critical thinking, problem-solving, and teamwork skills to overcome each challenge and unlock the next clue. The challenges are designed to test your knowledge and skills in various aspects of employability in Industry 5.0. Each challenge brings you closer to cracking the code and escaping the room. But be careful as you only have 1 hour to crack the code and earn a position at EmployTech Industries. Are you ready to accept Dr. EmployTech's challenge and crack the code?

When the players find the key word and announce it, Dr. EmployTech says: "You have successfully completed my challenges and proven your employability in Industry 5.0! Congratulations you successfully acquired a

position in our company! I am very impressed by your skills and knowledge. You have gained valuable insights into the future of work and are ready to embark on a successful career in Industry 5.0, armed with the key principles of employability."

 **Role of the game master\*\*:** The Game Master takes the role of Dr. EmployTech and welcomes the group of players to his company. He says that he is looking for competent employees to join his team. However, the future employees have to prove their knowledge and skills by completing a series of challenges in the Employability escape room. He reveals that he has hidden the "Employability Code" within the room, a secret formula that unlocks the door to a promising career in Industry 5.0. After that he reminds them of the rules of conduct inside the room. Lastly, he explains that he will be observing from afar and provide hints and guidance when they need to. The GM goes to sit on a chair away from the players. The GM also holds the key that unlocks the escape room door. He/She will provide it to the players after they find the final CLUE.

Flow chart\*\*\*:  
Linear





### Challenges:

Challenge 1: Tech Puzzle. In this challenge, you will need to leverage advanced technologies to complete a task. You will need to understand how these technologies are transforming industries and how humans can collaborate with them to enhance productivity and efficiency. The Game Master hands players an envelope. Riddle: "I'm a data vault, secure and sleek. With ones and zeros, I help you seek. Find my code and scan it right. Unlock the data, to shed some light!"

Challenge 2: Teamwork is Key. In this challenge, you will need to discuss with other players to find the right answers. This challenge promotes teamwork, collaboration, and problem-solving skills, which are essential in the modern workplace, especially in industries that are transitioning to Industry 5.0. It provides an opportunity for players to practice and improve their teamwork and collaboration skills in a fun and interactive way, while also reinforcing the importance of these skills in the context of employability in Industry 5.0. To access the challenge, players have to solve the riddle located in the box and find the hidden USB stick; itself taped under a table. Riddle: "Connected, storing data bright, Ready to plug, power and light. Look down low, explore with care, A tech surprise, a digital flare."

Challenge 3: Circular Economy. The players open the drawer and find a circular diagram that represents the lifecycle of a product, from production to disposal. However, the diagram is missing some crucial pieces, and the players need to find and place the missing elements in the correct order to complete the lifecycle and unlock the next Challenge. Riddle: "I start with raw materials, and I end in the bin, A life cycle of products, let the puzzle begin. From production to disposal, it's a circular trend, Find the missing pieces, and the code you'll then extend."

Challenge 4: Crossword. GM gives an envelope with a riddle after the successful completion of Challenge 3. The players solve the riddle and use the code on the computer and discover a crossword puzzle related to the circular economy, with clues related to concepts such as reduce, reuse, recycle, repair, and repurpose. They need to fill in the crossword correctly to reveal a hidden code or word that they say to the game master and unlock the final door. Riddle: "Crack the code, unlock the gate, On a device sleek and up-to-date. A digital tool, slim and light, With keys and screen, a coding delight. Find me now, and you shall see, The one that holds the Circular Economy key!"

### Puzzles:

Puzzle 1: The players must find and scan the QR codes placed throughout the room. Each QR code includes information on Industry 5.0 as well as a hidden number. The players must take note of that number. When the players scan all

the QR codes they end up with 3 numbers. They must use them in the correct order to unlock the 3 digit padlock that leads to the next Challenge.

Answer: 916

Puzzle 2: A quiz. The players have to locate the hidden USB, plug it to a computer device and solve the quiz collaboratively. When they have answered all the quiz questions correctly, they gain a key, which unlocks a drawer for the Challenge 3.

Puzzle 3: Product Life Cycle Puzzle. The players open the drawer and find a riddle and a circular diagram. They need to search the room for missing puzzle pieces that represent different stages of the product life cycle, such as extraction of raw materials, manufacturing, distribution, use, and disposal. Once all the missing pieces are found and correctly placed on the diagram, it reveals a hidden code that can be used to unlock Challenge 4. Answer: 2075

Puzzle 4: The players solve the riddle to gain access to this crossword. The players need to use their knowledge of circular economy concepts to correctly fill in the crossword puzzle. For example, they might need to find words that describe ways to reduce waste, reuse materials, or recycle products. Once the crossword is completed correctly, a code or word is revealed, leading to the solution of the escape room. CLUE: ECONOMY



Settings:

Challenge 1: Place QR codes around the room. One on the floor, one on the wall next to a painting and one on a table.

Challenge 2: Place the Box with the riddle inside on a table. Stick the USB stick under another table further away. Laptop on a table. GM holds the KEY that the players acquire if they solve the quiz.

Challenge 3: A desk with a drawer that locks. Inside the drawer there is the Circular Economy diagram. 4 Hidden puzzle pieces. 1 behind a painting. 2 under a desk. 3 under the bin. 4<sup>th</sup> inside a cabinet.

Challenge 4: Laptop on the table with a locked "Circular Economy" file.

Hinting:

**1<sup>st</sup> Hint:** Challenge 1. If players cannot find anything after scanning the QR codes, the GM says, "Look closely inside the texts".

**2<sup>nd</sup> Hint:** Challenge 2. If players can't locate the USB stick GM says "Look underneath"

**3<sup>rd</sup> Hint:** Challenge 3. GM says, "Think about the different stages of a product's life, from creation to disposal. Consider the key concepts of "reduce, reuse, and recycle" to identify the correct order and complete the puzzle." This hint is optional and should be given only if players have great difficulty in finding the correct order.

**4<sup>th</sup> Hint:** Challenge 4. If players cannot solve the crossword the GM says "Remember the 3 R's: Reduce, Reuse, and \_\_\_\_\_. Think about ways to give waste materials a new purpose and minimise waste in the crossword puzzle."



Debriefing :

- What are some skills that employees of the future should develop? Did you notice how you applied them during the game?
- How important are Human-centric skills to the economy of the future?
- How can these skills be applied to real life situations? (Encourage players to reflect on how the skills learned in the escape room can be transferred to other contexts and how they can continue to develop these skills outside of the escape room.)
- How can the principles of Circular Economy and Industry 5.0 modernise the future workplace?
- Overall Experience: Allow players to share their thoughts and feedback on the challenge, including what they enjoyed, what they found challenging, and what they learned. Discuss any memorable moments, highlights, or insights from the activity. Encourage players to reflect on how the escape room activity relates to the learning objectives and themes of employability and Industry 5.0, and how they can apply the skills learned in their future endeavours.