



Funded by the
Erasmus+ Programme
of the European Union

Escape  Stay

Escape to Stay - make VET your first choice

No.: 2020-1-DE02-KA202-007427

Intellectual Output 1

National Report Spain

Preparation for White Paper

"What makes vocational training attractive?" - Improving the image of VET with effective educational Escape rooms

March, 2021

1. INTRODUCTION: WHY ESCAPE ROOMS FOR VOCATIONAL ORIENTATION? WHAT ARE WE TALKING ABOUT (DEFINITIONS OF ESCAPE ROOMS AND VOCATIONAL ORIENTATION)

First of all, it is important to define what it is understood by Escape rooms. **An escape rooms is an activity that consist of a group of people locked in a room, usually with a specific theme, with the aim of escaping from the room before the time limit expires by solving a series of games or enigmas.** The participants of an Escape room solve games or enigmas in order to accumulate clues that allow them to reach the final objective, to leave the room in the established time. Normally an Escape room has a specific setting or story, the various games that are carried out will follow the thread of this story or environment, developing this story, the end of which will coincide with the end of the Escape room: escape. from the room.

Many of the characteristics of Escape rooms can be traced back to classic games such as "Cluedo". Furthermore, the first signs of an actual Escape room can be found in 2006, when engineers from Silicon Valley created the first Escape room game, although the first Escape room as such appeared in 2011 in the city of Budapest.

The theoretical basis for the importance of Escape rooms, especially in the field of education, can be found in Csíkszentmihályi's Flow Theory. The existence of educational escape rooms is included in the "**gamification of the classroom**" movement, which is the application of game elements and game design techniques in non-game contexts.

Once we have defined what an Escape room is, it is worth defining what vocational orientation is. **Vocational training is an educational system that aims to train people to perform a professional activity,** which is characterised by its practical approach and its proximity to companies, achieving a faster incorporation into the labour market.

So, **why are Escape Rooms important for this type of training?** How can we link these two ideas?

Those responsible for vocational training are aware of the interest that organisations and companies have in recruiting professionals who not only demonstrate their technical skills, but also demonstrate the management of the so-called soft skills, such as leadership, communication skills, ethical values or the ability to work in a team. Practice has shown that these types of qualities are very little fostered prior to entering the world of work, and they need to be promoted beforehand, both at an early age in general education and in vocational training.

Therefore, it is possible to appreciate the great importance of soft skills, they are very important for the students, and they are currently in demand by companies. Taking this into account, the guidance given by the Escape room should aim to make young people realize the great importance of these skills and discover skills they were unaware of, highlighting the value of VET. **This could be the great challenge of this project, to guide the students, through the use of games and practical cases in the Escape room and to show the students the relationship between the world of VET and the insertion in the world of work.**

It should be noted that Escape rooms are very popular, and there is academic support for its use in areas such as the education sector, leisure, dynamics between co-workers or human resources selection processes. However, in Spain there is a lack of research and academic support for the benefits and usefulness of the Escape Room in guiding students towards their future, in the case of this project, towards vocational training.

2. METHODOLOGY FOR INITIAL STOCKTAKING: DESK RESEARCH AND FOCUS GROUPS

The prompts were designed to illicit qualitative desk-research driven responses. In order to write the inputs from Spain we followed the template and guidelines created by the coordinating partner and distributed to other partners.

This national report includes three main sections

- Desk research
- Focus group results
- Reflexions

The first thing we did was to talk to colleagues from the Chamber of Commerce of Zaragoza to introduce the project and to ask them to provide us with contacts in the world of escape rooms and in educational centres. Thanks to this brainstorming we got several contacts to invite them to participate in the focus group. The next step was to send them an invitation to participate by email:

- 3 VET schools: IES Miralbueno, Salesianos y Océano Atlántico
- Gobierno de Aragón (regional government)
- Escape room owner: Javier Arenas Moreno (room 60)
- High School implementing Escape room games for education purposes: IES Juan Carlos I in Murcia.

While waiting for their responses and confirming the meeting for the focus group, we focused on desk research.

This national report reflects a snapshot of the national status and initiatives. Existing reports and studies of Escape games are consulted and documented. The documents we have used to provide a theoretical background and practical examples are reputable academic documents from reliable and official sources, from well-known journals in the field of education or from universities. Official sources (both from the Spanish and regional governments) were also consulted, in order to include a view from the public perspective. All documents have been considered as relevant and from official sources, very useful for the project.

Once these documents were gathered, they were thoroughly analyzed and read, including in this report the most relevant aspects and arguments for the project.

In section 3 of this document we describe in detail how the focus group was carried out and who the participants were in the end. Interviews and conversations took place with VET teachers as well as professionals working in this sector. The data provided does not and cannot claim to be complete or empirically-grounded research but instead represents and reflects the research and estimations of the professionals who have participated in the focus groups.

3.DESK RESEARCH PART 1: VOCATIONAL ORIENTATION AND GUIDANCE

1) Short overview about VET, acceptance of VET (numbers) and which professions are in demand in general, and in particular of technical and ICT professions?

Today's education system allows students to choose the most suitable training option, the training with which a person enters today's labour market plays a key role in employability. But the successful employability of young people as well as adults no longer depends only on their level of education but also on their level of professional competence.

In a global market with a high degree of competitiveness and uncertainty, with changing global regulations, with constant demographic movements, with rapid technological changes, with the continuous demand for new needs for skills and abilities to adapt to companies and the emergence of new sources of employment, we should not be surprised by a continuous updating of Vocational Training, **being Vocational Training an attractive, innovative and dynamic offer for young people.**

At present, vocational training is the professional studies closest to the reality of the labour market and responds to the need for **qualified personnel specialised** in the different professional sectors in order to respond to the current demand for employment.

If we analyse its high labour market insertion rate, we can affirm that VET has already been transformed into a training path that responds to the real demand for employment, now is the time for change in Spanish society.

In Spain, Vocational Training offers more than 150 training cycles within 26 professional families, with theoretical and practical contents adapted to the different professional fields. Moreover, Vocational Training is in permanent contact with the different productive and economic sectors, responding to their needs, which is why it is gaining recognition in all the countries of the European Union and its qualifications are increasingly in demand. **This makes vocational training an attractive, quality option that adapts to the needs of each individual to improve their professional career.**

VET IN NUMBERS:

In Spain, there are currently more than **150 qualifications that are organised into 26 professional families** with which one could obtain a basic vocational qualification, a technical qualification and a higher technical qualification.

In the last five academic years, the number of **VET students has increased by 23%**. Thus, for the 2019-2020 academic year, the number of Vocational Training students has increased, especially due to the increase in the number of students in Higher Levels, which stands at 21.4%, and to the development of Basic Vocational Training.

In terms of Dual Vocational Training -a modality that is not very popular in Spain-, the number of students enrolled totalled 22,586 in a total of 889 centres, of which almost 70% are public. The highest volume of students was reached in the Higher Level, with 14,101 students, representing 4.2% of the total enrolment in the on-site system.

DEMAND

It is true that in Spain there is a greater acceptance and demand for this type of studies.

The Ministry's report also shows the cycles with the highest number of students. At the intermediate level, these are Health (30,140), Administration and Management (18,773) and Computer Science and Communications (12,091). On the other hand, in Higher Level, the cycles that stand out in terms of the number of students enrolled are Administration and Management (24,538), Socio-cultural and Community Services (23,546), Health (22,058) and Computer Science and Communications (15,995).

By gender, 55.6 % of students are men and 44.4 % are women, although the presence of women is increasing with the cycles: women account for 29.3 % of students in basic vocational training, 43.7 % in intermediate level and 47.7 % in higher level. Men, on the other hand, are in the majority in Vehicle Transport and Maintenance, Installation and Maintenance, Electricity and Electronics, Mechanical Manufacturing and Computer Science and Communications. By professional families, women register a higher percentage than men in the case of Health, Socio-cultural and Community Services and Personal Image.

In order to have a global perspective about the demand of VET in Spain related to the whole situation of the education, it has to be highlighted that if we take into account the population over 16 years old and more and the level of the education achieved, it is possible to see that only 8% have a secondary education with a professional orientation. Likewise, only 12% of students between the age of 15 and 19 are enrolled in VET programs (when the average of OECD countries is 25%), even though the occupancy rate is higher for VET programs and the necessity and demand of this kind of formation is increasing. Spain has a structural problem, it counts with a lot of people with basic and superior education, but not with intermediate (VET). Therefore, the necessities of the labour market and the qualification of Spanish students do not match.

- 2) Short overview about advantages of VET compared to other educational pathways? “Fun” part of VET pathway? Misconceptions about VET? Are there professions in the technical and ICT sector which are not perceived as very attractive and why? (very important topic!!) -> Which concrete occupational profile or group of profiles or sector should be focus on with the later Escape room setting?

Historically, Vocational Training in Spain has suffered a situation of **political neglect and social discredit** which is reflected in the lower levels of enrolment (practically irrelevant before 1955) and in its consideration as a second-class training compared to university studies. This past, largely due to the delay in the industrialisation of our country and to certain cultural and social characteristics, undoubtedly influences the current situation and its analysis allows us to better understand the challenges facing any attempt to revalue and extract the maximum potential from this branch of education.

Advantages and disadvantages of VET system in Spain:

Advantages:

- High specialisation in a specific branch of studies, in fact, when you graduate you will be a Medium or Higher Technician in the branch of study specialisation.
- Work placement via internships that give you the opportunity to face the world of work.

- Ease of professional incorporation with future prospects as you will already have previous experience developing the internship and you will have already faced the world of work. At the same time, you will be able to see with this experience if you really like this profession or if you do not see yourself working in the medium term.
- Possibility of access to university.

Disadvantages:

- Very specific studies. If you do not like the field you are studying, it will be difficult for you to be motivated by the subjects you may encounter.
- Compulsory internships. Perhaps as a student you don't like to do an internship in a workplace because you don't consider it a priority.
- Direct access to university, but more "difficult". Although you can access any degree course in this field if you have a Higher Degree, the mark you get in the training cycle will be over 10 and not over 14. If you want to study a degree course with a cut-off mark of, for example, 11.5, you would have to study the university entrance exams (PAU) on your own.

National campaigns to promote VET

The Ministry of Education and Vocational Training is working on the strategic plan promoted by the Government with the collaboration of the social partners and the business sector to update these courses in order to improve employability and meet the needs of the labour market. Over the last year, the Executive has published six new Higher Level qualifications, bringing the total number of qualifications offered in all vocational training cycles to 172. The strategy designed by the Ministry of Education and Vocational Training seeks to update the catalogue and expand the offer, improve the accessibility and flexibility of these courses, as well as the accreditation of basic competences for adults.

It has to be highlighted that recently the government is giving a bigger importance to VET. As a symbolic sign, the name "Vocational Training" was added to the official denomination of the Ministry, that used to be only known as Ministry of Education.

Moreover, **the Government has presented in July 2020 a Plan for the modernization of VET**, worth 1500 million euros. This plan looks for a public-private partnership, guaranteeing a VET formation that facilitates the incorporation of students to the labour market, and their permanence, fulfilling the necessities of the companies. In addition, the Plan will increase the number of available spaces for VET by 200 000 by 2023 and looks for the creation of entrepreneurship classrooms in 1850 VET centres of Spain and the development of digital skills for teachers.

3) Common understanding/national definition of vocational guidance and orientation?

4) National policy on vocational orientation and guidance (or career guidance) – any official guidelines?

The Spanish Organic Law 2/2006 on Education establishes among its principles the educational and vocational guidance of students, as a necessary means for the achievement of a personalised training that favours a

comprehensive education in knowledge, skills and values. It is understood as the mechanism through which society equips young people with the tools with which they can make decisions about their working life.

Guidance counsellors form part of the internal and external guidance structures that intervene directly in educational centres. **Guidance units are established by the different Autonomous Communities.** On the positive side, it is a service that is decentralised, however, this can also mean that there is inequality in the educational guidance of students, depending on the region in which they reside.

It is a pathway that is travelled together with young people, helping them to become aware of their abilities, competences and personal interests. The fundamental aim of career guidance is to help students to make their own choices, both in terms of education, training and finally in terms of their career.

5) Target groups of vocational guidance (for VET)? To which educational level can they be assigned?

In order to refer to the different target groups existing in Spain, we have to take into account the different levels of professional training that exist. Thus, we have the following levels:

- Basic Vocational Training Cycles or FPB. Once completed, the student obtains the title of Basic Professional of the cycle. In this case, these are compulsory courses and correspond to the Compulsory Secondary Education qualification.
- Intermediate Level Cycles or FPGM. These lead to the title of Technician and form part of post-compulsory secondary education.
- Higher Level Cycles or FPGS. The student obtains a Higher Technician qualification and they are on a par with higher education.

Taking this into account, **target groups vary from one level to another as follows:**

- Basic Vocational Training Cycles or FPB.
 - o Target group: Aimed at students who have not previously completed Compulsory Secondary Education.
- Intermediate Level Cycles or FPGM.
 - o Target group: young people, over 16 years old, who have completed Spanish compulsory basic education.
- Higher Level Cycles or FPGS.
 - o Target group: young people who have completed an intermediate cycle or baccalaureate, usually pursuing a specialisation in a specific professional family.

You may find in **Annex I** an infographic about educational system in Spain.

6) Responsible actors in vocational guidance and orientation; other actors who could benefit from the projects' Escape room settings? How could they benefit?

In Spain, Bertelsmann Foundation speaks of '**Coordinated Vocational Guidance**'. This identifies that vocational guidance is not the responsibility of just one person. **Several actors are involved in the guidance of young people** and all of them could benefit from our project result. Thus, the following actors are identified:

The counsellor: The natural leaders of Coordinated Career Guidance are the guidance counsellors. The role of the guidance counsellor in schools is key as they are the experts on what and how to support students' vocational development and decision-making processes.

The students: If the student is accompanied and advised at all times in the application process, he/she will be motivated. Young people take on more responsibility and learn to act more autonomously. The learner will have an easier and more willing transition to the world of work or academia.

The family: Often decision and transition periods are stages in which the young person moves away from the family. With a quality guidance system, parents, guardians and relatives are involved in the decision-making process and receive support, reinforcement and further information from the school through active collaboration on both sides. All this exchange of experiences improves the employability of their children.

Schools and VET centres: Thanks to a coordinated system, schools adapt to social changes, making their guidance more efficient and effective. In this way, they will be more attractive to attract teachers, students and parents. The coordinated management framework facilitates the work of the school by providing documentation, experiences and exchanges with other schools and regional institutions.

The teachers: The co-ordinated career guidance management model facilitates the work of teachers by providing them with a structural and conceptual framework within which to work. The work of the guidance teacher is strengthened and enriched, with new ideas and proposals, as well as additional qualifications. The relationship between the teacher and the students is much more intense.

The companies: The fact that companies are committed to coordinated guidance, as well as forming part of the strategy of social commitment and contributing to the improvement of their own image, is a very powerful tool for improving their selection processes. Graduates join the company with more maturity, providing a more motivated, prepared and qualified generational replacement. The needs of the company will be in line with those of the students and with the training they receive. The adaptation of both parties will be much more fluid and competent.

7) Existing national services and practices for vocational guidance? Also activities of companies to attract students to VET programmes.

Vocational guidance throughout life, taken as a whole, is one of the most profitable investments that public authorities can make. A person who has access to quality guidance resources has all the necessary elements for proper decision-making and this, in turn, significantly reduces failure in personal projects, educational drop-out - in a broad sense -, social imbalance and inequalities.

Countries with a strong vocational guidance system have low early school drop-out rates and lower drop-out rates at post-compulsory levels. Its importance is increased in circumstances such as the current ones, as a public service to accompany the design of the new training and professional itineraries of each person.

However, although institutions are aware of the relevance of having a good vocational guidance system, **in Spain guidance work is carried out independently by different actors and in different areas, educational and employment, and therefore requires coordination that integrates, makes all these efforts profitable and optimises them.**

The plan for the modernisation of VET, recently presented in our country, already includes a specific section to address the importance of vocational guidance. It also sets out a number of concrete points to be addressed and improved at national level over the coming years.

8) Problems analysis: have you identified any paper / source that outlines specific problems vocational guidance practitioners face? Any data about whether their work is successful? If not, why not – what are obstacles?

We have not found any specific report or paper dealing with this issue. However, we can highlight two points in this regard:

1) While doing the relevant research to write this national report we have realised that the system in place in our country seems to not work properly. That is **why we decided to include two VET students in our focus group. We wanted to know their first-hand experience.** Their input on what they would have needed when choosing their studies seems to be of interest for the Project. It has to be taken into account that the project ought to not lose the perspective about the target group and the main aim of the project: the students.

2) In the VET modernisation plan presented by the national government recently, it talks about some of the challenges that need to be addressed in this regard: the gender gap. This is a responsibility shared by all citizens, but which specifically affects administrations and social partners. **In Spain there is a gender gap in access to certain professional profiles. This is present at all levels of education but is most evident in Vocational Training, where some specialities are feminised and others masculinised.** Quality information and vocational guidance on professional sectors and occupations would allow men and women to discover opportunities in professions that they would probably have discarded from their life project. This gender point can be taken into account when creating our escape room in the Project.

4. DESK RESEARCH PART 2: ESCAPE ROOMS FOR EDUCATIONAL PURPOSES

- 1) **State of play of Escape rooms for education in general: in which educational sectors (general education, VET, higher education etc.) are they applied already? If nothing is to be found on Escape rooms, try with Escape games. Which purposes do they have? Are there key aspects they focus on? Are there any projects or initiatives on Escape rooms/games for education?**

Escape rooms, which are very popular as a leisure activity in Spain, have already been applied at various educational levels, including experiences in primary and secondary classrooms, at university level and also in the vocational training sector. In addition to Escape rooms, in Spain we have other experiences of gamification in the classroom such as BreakOutEdu.

The purposes of the Escape rooms are, among others, to achieve the objectives of teamwork, to learn the value of work teams, to differentiate between effectiveness and efficiency, to identify the different types of roles, to promote positive interdependence and personal accountability, as well as problem solving and greater participation. In short, to enhance students' soft skills and learning through play.

Escape rooms focus on key aspects such as the possibility of addressing competences or skills related to communication and teamwork with students. In this sense, some of the key aspects would be the possibility for students to work together, accept challenges, delegate, communicate, and make decisions.

The Escape Room approach can be defined as the 4 C's: critical, collaborative, creative and communicative thinking.

Furthermore, it should be noted that while in stages such as primary school Escape rooms are mainly focused on promoting teamwork, critical thinking and communication, in the university stage they can also be used to deepen the specific knowledge of the degree, entering into the problems posed in the Escape room.

Finally, it is worth mentioning that in Aragon, the region in which Zaragoza is located, the regional government promoted a project to **train teachers in the application of Escape Rooms as a resource to be implemented in the classroom**. In this case, the aim was that through the Escape Room, participants would have the opportunity to experiment with digital tools, which are very important nowadays, learning about the uses and applications of new technologies, so that they can be integrated into the field of education.

- 2) **State of play for Escape rooms for vocational orientation: are they offered at different educational levels (general education, VET, higher education etc.)? Anything particular offered in VET? Are there any projects or initiatives on Escape rooms/games for vocational orientation?**

As pointed out in the previous question, there are indeed Escape Room experiences in Spain at different educational levels, both general education, VET (vocational training) and higher education (university level).

With regard to the offer in VET, educational Escape Room projects have been developed in this specific field. We can highlight two Escape room initiatives for VET, which have been developed in Spain in this field so that students become aware of their own skills, both technical and soft skills. On the one hand, it is worth highlighting the intervention of an Escape room in a Vocational Training and Guidance classroom of a professional cycle in the city of Almeria, in which an Escape room was applied to achieve greater motivation on the part of the students, turning the classroom into a playful and practical environment.

On the other hand, we have the case of the Escape room in IES Juan Carlos I in Murcia. The Escape room project carried out in this institution was aimed at the teaching staff of this center, in a training cycle, with the aim of introducing methodological changes, such as new technologies, in educational practice through an Escape room.

3) Gaming modes: are there online and offline (classroom) versions? Any preferences or described experiences to prefer one mode over the other?

There are online versions of Escape Rooms in Spain, especially due to the situation caused by covid19. **The face-to-face form is preferred as it allows better and greater interaction between the participating students, as well as greater control by the teachers** who coordinate and control the game, achieving better results in the objectives set for the Escape rooms, as well as being carried out in environments such as classrooms or other educational facilities. The use of new technologies (e.g. QR codes or mobile applications) has been incorporated into the Escape room, so even offline (face-to-face) Escape rooms can be considered to incorporate elements of an online mode.

However, it is worth mentioning that **the online option may be preferred on certain occasions**, such as when the participants (students) are in different geographical locations, enabling teamwork and cooperation that would otherwise not be possible. Additionally, Young people is really used to lay online games and it is an environment in which they feel comfortable and familiar. They are really used to this kind of communication, so it is not something unknown.

4) Ideas for possible storylines that guides students through the Escape game - titles and key story

There are an infinite number of stories that can be used as a guiding thread for the development of an escape room. Among the most common are:

- **Prison:** "The world's most prestigious FOL (Vocational Education and Training) technician, John Smith, has been imprisoned because one of his main rivals, Mr. White, driven by hatred and envy, has managed to charge him with an intellectual property crime. His whereabouts are unknown, so we need you to find out how he escaped and to find out his current whereabouts in order to prove his innocence. John Smith's future is in your hands, FOL depends on you".
- **Countdown...3, 2, 1:** "A nuclear bomb is set to explode in 60 minutes. You, the most gifted students of the Universal FOL Institute, have been tasked with the most important operation of your lives: to save the planet from mass destruction! Our hope lies solely in you. Apply all your teamwork knowledge and skills to it, our lives are in your hands".
- **Guardians of Rights:** "the best group has been chosen to travel to 2033 and complete the glossary of censored words in 2050". You have to solve 4 riddles, containing up to 6 challenges, in order to collect various key words, which are obtained by solving the games, to build a final glossary of words that is the solution to the Escape room, allowing you to reach the exit door that will make you the Guardian of Rights.
- **Escape from the cursed island:** "your crew has been sailing aimlessly for several days and you are shipwrecked on an unknown island. You soon discover that you are not alone as a spectre of a fearsome

pirate wanders around and hides a valuable treasure. Your mission is to find it so that you can get off the island before the pirate catches you.

- **Search for the vaccine:** "With the help of your team, you will have to take on the role of a researcher in a laboratory trying to find a vaccine against the coronavirus. To do this, you will have to decipher different codes and keys in order to unlock the rooms of the laboratory and make progress in the study of the vaccine".

5) Suggestions for riddles/puzzles/mini activities to escape the room: short description and solution incl. necessary materials and tools for riddles to escape, supplementary documents if necessary, integration of digital tools (only naming, not too detailed)

One of the great features of this game is its versatility. Almost any type of riddle can be fitted in to provide a challenge and be fully integrated into the story:

- **Location challenge:** through a note with a cipher they have to locate an area of the classroom, after having deciphered the code using algebra or other mathematical methods. A digital tool such as Google Maps can be used.
- **Use of a QR code:** aims to enhance digital competence. With the use of the mobile phone, through the QR code, they are given a new clue. The QR code can be used to view some kind of image, as well as videos or the completion of questionnaires.
- **Cards** with codes to decipher new clues and next steps, using various possible tools.
- **Puzzle:** a puzzle has to be solved to form an image that leads to the next stage in the Escape room.
- **Riddle challenges:** challenges in which the memory has to be put into play, by a combination of numbers that they have to achieve they get access to the next step in the Escape room. Solving ciphers and numerical locks, as well as other games such as sudoku.
- **Solving enigmas** by verifying information on social networks, Internet forums or websites.
- **Augmented reality challenge:** through the use of augmented reality technology, an Escape room game or enigma is solved.

6) Objects and decorative elements (relevant for mobile version)

It will depend on the story that takes place in the Escape room, however we can highlight different objects that can help the development of the Escape room, creating environments that motivate participants and also enabling games and puzzles: QR code, puzzle, chests, chains, padlocks of various kinds, packs of cards, safe, diaries, crossword puzzles, word searches, maps, triptychs, magnifying glasses, mirrors, decorative images, symbol translator, torches, timers, activity planning sheets, coordinate codes, etc.

7) Definition of possible role of participants (tinkerer, collector, coordinator etc.)

Examples of roles that can occur in an escape room:

- **Mathematician:** the one who does the mathematical calculations.
- **Locksmith:** the one who enters the coordinates or lock codes.

- **Reader or spokesperson:** the one who reads out the evidence and lists, and the one who can address the Escape Room coordinator/organiser.
- **Collector:** collects all the evidence as it is passed.
- **Investigator:** the one who opens drawers, picks up objects, inspects places or situations for new clues.
- **Leader:** guides and coordinates the team.

It should be noted that throughout the Escape Room the roles can be rotated so that the Escape Room develops in a more dynamic way and allows the participants to understand the different roles that may exist.

8) Safety and possible critical situations (what might happen – risk management)

All the activities carried out during an Escape Room are intended to be totally safe, with no possibility of physical risks for the participants. Above all, as it is an educational environment, it will be about challenges and tests related to numerical, memory or logic challenges, so the physical risks involved are minimal. There could be conflicts within the participating groups due to lack of coordination, or different perspectives and ideas that oppose each other to solve the same problem, which can lead to a crisis, which must be managed within the group, and if necessary by the Game Master, a very important figure who must be present throughout the game.

5. RESULTS OF THE FOCUS GROUPS

Information on the composition of the group

NAME	GENDER	ROLE OF PARTICIPANTS	NAME OF ORGANIZATION	TYPE OF ORGANIZATION
ILUMINADA MINGORANCE	F	VET teacher	IES Juan Carlos I (Murcia)	VET and general education training centre
CARLOS ALFONSO	M	VET teacher	IES Juan Carlos I (Murcia)	VET and general education training centre
ISABEL FRUTOS FRUTOS	F	VET teacher	IES Juan Carlos I (Murcia)	VET and general education training centre
JUANJO INFANTE	M	VET teacher	IES Juan Carlos I (Murcia)	VET and general education training centre
MANUEL MADRID	M	VET teacher	IES Juan Carlos I (Murcia)	VET and general education training centre
JAVIER ARENAS MORENO	M	Escape Room Specialist	Room 60	Escape Room building
ELENA A.	F	Current VET student - IT technician	Chamber of Commerce of Zaragoza	Chamber of commerce
CARLOS GARCÍA MONTOYA	M	Former VET student - Frontend developer and web designer	Trackglobe	IT consultant

All of them agree that the project is **feasible** and they encourage us to work hard to achieve the project objectives. Moreover, they agree that **it is a motivating, innovative and very interesting proposal**. Especially, the respondents who work in educational centres show interest in the development of the project, they see the great potential and feasibility when promoting VET in the centres, a field that they recognise can be improved in Spain. Moreover, they all see this proposal as very adaptable and applicable to different realities and schools.

However, each expert or group of experts consulted provided a different perspective and approach. Below we include a summary and aim to group together the conclusions reached in the focus group.

Experts in vocational training point out that an escape room is an **ideal environment to demonstrate the professional skills of the participants**. Moreover, it is a resource that they use at school to evaluate the soft skills

of the students. According to their experience, they emphasise that **the group reflection and brainstorming that takes place once the game is over is very important**, it is the moment to evaluate what has happened inside the room. From this moment of reflection many new ideas and knowledge are obtained, and, in this particular case, we could take advantage of it to "sell" all the advantages and professional opportunities that VET offers.

Teachers insist that we have to think very carefully and plan how we are going to develop the **promotional action** as a whole. That is, we have to think not only about the game itself but also about how we are going to address schools and students to encourage them to play and to discover everything about vocational education.

In their experience, teachers who had used escape rooms in the classroom told us that until we have clearly defined what we want to show and with what story we are going to do it, we should not think about testing.

The **escape room expert** was motivated by the project from the very first moment. He is expert in designing escape rooms in different formats and aimed at different audiences. In addition, he emphasised the **versatility** of this game format as it can deal with different topics and ideas. For this reason, he believes that, when developing the project, **we have to keep in mind the objective and the target audience in order to adapt the story and the games**.

He focused a lot on the fact that we have to be very clear about what our objective is. **Bearing in mind that one objective is always going to be to have fun, our second objective must be well defined in order to pursue it**. He also stressed that escape rooms can have different formats: face to face, team competition, room, box, board game... We have to think and adapt the format that best fits our project. It is very important to let our imagination run wild.

Finally, he put the central focus on plan B. **There must always be a game master who knows the game inside out and who can put a plan B in place in case something goes wrong**.

As we have already introduced, we thought it would be a good idea to talk to people who has studied VET in order to know their experience. Elena, a **vocational training student** and current worker in the Chamber of commerce, told us first-hand what her guidance process had been like. She explained that **there is no set process followed in the secondary schools** but that, although there are vocational guidance counsellors, it is the families and teachers who do the guidance work. In higher vocational training, guidance is more focused on the job opportunities that the degree offers and in intermediate vocational training, guidance is focused on the question of whether to go to university or vocational training.

When it comes to implementing the project, Elena highlights those things that she missed so that we can implement them. On the one hand, to **present all the professional families in general** and then to focus on all the novelties. In addition, she would focus on the fact that it is a **practical training**, that you have to study and work, but the didactic approach is different from what young people are used to. In addition, the employability of young people who have this type of training should be promoted.

Elena pointed out that she thinks it is a very attractive activity for young people, however, **she believes that it is important that this does not replace a conference, seminar or orientation session**. In other words, she agrees with the professionals who emphasise the need for a process of reflection, discussion and conversation after the game.

Carlos, **a former VET student and current IT sector worker**, said that he finished his basic education 10 years ago and it was then when he had to opt for a VET or university education. In his case there was no guidance

service at school, where, in addition to general education, VET degrees are studied. At that time VET education had a poor image so it was not an option... As he had learned about web programming on his own, he decided to look for formal studies (in addition to the non-formal courses he had studied in his spare time) in his city. This is how he discovered the different professional training options that were appearing in the technological field.

Carlos values in a very positive way the **innovation that this Project can bring to the educational centres**, moreover, as there is a lack of guidance, **maybe incorporating this game makes people talk more about VET in general**, and that is always a positive thing.

Regarding which aspects of the VET path should be promoted, Carlos would highlight that it is a very **practical and specific training method in a specific field of work**. In addition, it is important to highlight the employability rate, he does not know anyone in his class who is unemployed. For this reason, Carlos believes **that VET is the only regulated training available in Spain for the new technological careers that are emerging**, and they are very complete and interesting degrees. This novelty is linked to employability.

Finally, he believes that **a good way to provide information would be to use a FAQ by students as a basis**.

Below we include more information given by the participants for each of the questions:

1) What are your experiences with Escape rooms, i.e. for entertaining purposes, for pedagogical reasons, for vocational orientation?

None of the participants have experience in using escape rooms for vocational guidance purposes. Javier, the owner and designer of escape rooms, does offer this personalised service in his company, but he has not yet designed one for this purpose.

Carlos and the teachers consulted have experience in leisure escape rooms. The other participants have never done an escape room.

2) What are your experiences in vocational guidance and attracting learners to VET programmes?

This question was only answered by the teachers, who always try to guide their students. And Carlos and Elena, neither of whom received any advice when choosing what to study.

3) What are the goals of vocational guidance from what you know, and which target groups are usually addressed with vocational guidance (levels, sectors etc.)?

The participating teachers, from their experience in VET, pointed out young people finishing compulsory basic education as the main target group. Once they have done basic VET the guidance work is less necessary because they are already in the VET system, they have more information about what it is and how to go on to higher VET.

Carlos understands that the objectives of guidance is to help young people who don't know exactly what training path they are interested in. He believes that it should not be something formal but should take into account the personality and tastes (beyond the educational) of the young person.

Elena, from her personal experience, believes that guidance should be focused on younger students. She was guided by her teachers to attend baccalaureate, two years of preparation for university. Once she had started on this path, it was her family and one teacher in particular who told her that if she was not happy, she could study a VET degree, specialising in computer science, which she really liked. From a basic degree in computer science she went on to study a higher degree in information systems, and it were her basic VET teachers who guided her. In her case, the figure of the vocational counsellor was not present in any case.

4) Which elements of VET, i.e. in your sector or in the technical and ICT sectors, can be picked out as attractive elements or positive, exiting tasks that can arouse the interest in potential VET learners? Which of these concrete attractive elements from the professional working world can be shown to young people in the planned Escape room settings?

In general, all agreed that emphasis should be place on:

- Employability.
- Specialisation from the first year.
- Learning by doing.
- Soft skills are highly valued: teamwork, leadership, etc.
- The wide variety of professional families.

5) Sometimes learners cannot come to the Escape room, so the room and its equipment has to come to them: we plan to arrange a box that contains everything for Escape room settings that can be carried around and used in mobile mode (i.e. taking the box into schools and turn a classroom into an Escape room). Do you think that is feasible? Which equipment would you put in the box?

They all said that they see the idea as feasible and very easy to transport from one school to another. This way many students could enjoy the experience. Regarding the equipment that the box should include Javier, the escape room expert, stressed that the possibilities are endless, that before thinking about the equipment we have to think about the story and what we want the students to discover with each clue. The equipment is what we should think at the end, it is infinite, as well as the type of clues, you can adapt and create many puzzles.

6) Later vocational guidance practitioners, VET schools and training companies could use the Escape room settings to create an own Escape room in their premises. How could they be enabled to set up the settings on their own (handbook, guidelines, videos etc.)?

All participants in the focus group agreed that the game should be accompanied by a presentation beforehand and a talk afterwards. It is an activity that needs to be explained and understood by the people who are going to implement it and by the students who are going to do it. It is important to understand that it is not just a game, that it has an important purpose. The more interactive and entertaining it is, the easier and more useful it will be.

7) Do you have any Ideas for possible storylines that guides students through Escape game (titles and key story) and which riddles/puzzles/mini activities could be challenging for them to escape the room?

The teachers proposed to explain the existing professional families with the following story: humanity has been destroyed and we have to create a world from scratch, we need to find out which are the most basic professional families.

6) RECOMMENDATIONS IN 10 STATEMENTS

- 1) The Escape room should seek to enhance students' skills related to leadership, teamwork, communication or problem solving under pressure (soft skills).
- 2) The game should be complemented with a presentation beforehand, in order to discuss and lay out the game, and a talk afterwards.
- 3) Prior to the development of the Escape Room, the teachers in charge (who would be the "Game Master") should receive training on how to develop this activity. For that purpose, the Game Master should have a complete and exhaustive guide to use during the Escape Room, allowing them to maintain control of the activity at all times.
- 4) Before designing the game, we should define in detail our objective, our purpose.
- 5) The puzzles, challenges or games that are developed during the Escape Room should be focused on memory, numerical or logical aspects.
- 6) The incorporation of technological elements in the Escape room, such as QR codes, is highly recommended.
- 7) The Escape room should be considered as an element in a series of workshops, briefings or information resources that motivate students to choose vocational training.
- 8) The Escape room should respect the Theory of Flow, have points of difficulty but also avoid situations of frustration or desistance on the part of the participants.
- 9) The ultimate aim of the Escape Room should be to incorporate a creative and practical element into the classroom, which allows students to discover and realise the importance of vocational training, of the possible opportunities beyond the Baccalaureate and University pathway.
- 10) Therefore, in order to achieve the above objective, we would prefer games or challenges in the Escape Room that do not divert too much attention to completely idle aspects, but always keep in mind the objective of conveying a new training possibility.

7) DEMYSTIFYING THE IDEA OF A VET PATHWAY AS SECOND CHOICE: GOOD REASONS TO START A VET PROGRAMME IN SPAIN

Many reasons lead us to determine that nowadays **Vocational Training should not be considered as a second option for those students who do not follow the path of Baccalaureate and University, but as a great first option** that offers great job opportunities to its students, opportunities that are increasing in the field of technical professions, facilitating a greater labour market insertion.

As we know, there is an increasing demand from companies for intermediate and higher level qualifications. Prospective studies by the European Centre for the Development of Vocational Training (CEDEFOP) point to an increasing demand for intermediate and higher level qualifications, at least until 2025, and a decreasing demand for low-educated workers.

Moreover, this demand coincides mostly with the technical and middle management levels offered by vocational training. Proof of this is that, by 2025 in Spain, 37% of jobs will correspond to people with a high level of qualification, 49% to people with a medium level of qualification, and only 14% to people with a low level of qualification.

Not only will almost 50% of the jobs correspond to medium qualification levels, but already today the possession of a Vocational Training qualification is related to a higher labour insertion, reaching an employment rate of 74%, making Vocational Training one of the best ways to combat youth unemployment, allowing more employability to these young people, whose lack of training separates them from the labour market as they do not have a professional accreditation.

Likewise, Vocational Training is of strategic importance for the competitiveness and progress of the Spanish productive fabric and for the employability of people. As we have seen, Vocational Training studies are the closest to the current reality of the labour market and respond to the current demand for qualified personnel specialised in the different professional sectors, creating specific technical profiles.

In short, **Vocational Training, both at intermediate and higher levels, must be defined as an attractive, accessible and high quality option that provides innovative and flexible training that is very close to the social and business reality, allowing students to adapt to the diversification of tasks and different jobs and a satisfactory labour market insertion in what the student has been trained for.**

In a global market with a high degree of competitiveness and uncertainty, with changing global regulations, with constant demographic movements, with rapid technological changes, with the continuous demand for new needs for skills and abilities to adapt to companies and the emergence of new sources of employment, **Vocational Training is of great importance, continually updating and opening new windows of employment opportunities.**

8. BIBLIOGRAPHY:

Moreno-Fernández, O.; Hunt-Gómez, C.I.; Ferreras Listán, M.; Moreno-Crespo, P., 2020, "Los Escape rooms como recurso didáctico inclusivo y motivacional en las aulas de primaria", *Prisma Social. Revista de ciencias sociales*. Retrieved 8 march, 2021. (<https://revistaprismasocial.es/article/view/3718>)

González Calatayud, V., 2020, "Escape room como innovación en la formación profesional", *Universidad Miguel Hernández de Elche*. Retrieved 8 march, 2021. (https://www.researchgate.net/publication/344773609_Escape_room_como_innovacion_en_la_formacion_profesional)

Lozano López, C. M.; Lázaro, M-N., 2019, "Escape FolRoom: Propuesta de juego integrada en clase de Formación y Orientación Laboral", *International Journal of New Education*, Vol. 2, Nº 2. Retrieved 8 march, 2021. (<https://revistas.uma.es/index.php/NEIJ/article/view/7453>)

Frutos Frutos, I.; Hernández Infante, J. J.; Madrid García, M.; Mingorance Cano, I, 2019, "Utilización docente de la Metodología de Juegos de Escape en los Ciclos Formativos de Servicios Socioculturales y a la Comunidad", *Revista de Educación, Innovación y Formación*, pp.: 62-80. Retrieved 8 march, 2021. (https://www.educarm.es/reif/doc/1/reif1_5.pdf)

Gobierno de España, 2020, "Plan de Modernización de la Formación Profesional. Formando profesionales para el futuro". Retrieved 10 march, 2021. (<https://www.todofp.es/dam/jcr:5d43ab06-7cdf-4db6-a95c-b97b4a0e1b74/220720-plan-modernizacion-fp.pdf>)

Ministerio de Educación y Formación Profesional, 2020, "¿Por qué estudiar Formación Profesional? Retrieved 10 march, 2021. (<https://www.todofp.es/orientacion-profesional/busca-empleo-entrenate/mercado-laboral/la-fp-y-el-mercado-laboral/importante-estudiar-fp.html#:~:text=En%20la%20actualidad%20la%20FP,en%20los%20distintos%20sectores%20profesionales>).

Online resources:

<https://www.camara.es/blog/formacion-y-empleo/que-es-la-fp>

<https://www.fundacionbertelsmann.org/es/home/orientacion-profesional-coordinada/orientacion-profesional-coordinada/quien-esta-implicado-en-la-orientacion-de-los-jovenes>

<https://cifpa.aragon.es/cursos/escaperoom40-ed1/>

<https://www.todofp.es/dam/jcr:5d43ab06-7cdf-4db6-a95c-b97b4a0e1b74/220720-plan-modernizacion-fp.pdf>

<https://www.todofp.es/sobre-fp/informacion-general/sistema-educativo-fp/fp-actual.html>

https://elpais.com/sociedad/2019/09/17/actualidad/1568714695_033491.html

<https://www.descubreiafp.org/proyecto/reflexiones-sobre-fp-espana/files/assets/common/downloads/publication.pdf?uni=fb1cf47330daeef27805f021db83fbf0>

https://www.lamoncloa.gob.es/serviciosdeprensa/notasprensa/educacion/Paginas/2019/191119_alumnadof_p.aspx

<https://www.ifp.es/blog/la-fp-sigue-creciendo-cada-vez-mas-alumnos-apuestan-por-esta-titulacion>

<https://www.avanzaentucarrera.com/orientacion/orientacion-academica/formacion-profesional/bachillerato-formacion-profesional-pros-contras/>

<https://sede.educacion.gob.es/publiventa/PdfServlet?pdf=VP12424.pdf&area=E>

<https://www.aacademica.org/000-073/266.pdf>

ANNEX I

