IO5: Best Practice e-book

BEST PRACTICES OF THE USE OF SERIOUS GAMES IN EDUCATION AND CAREERS GUIDANCE

JSPO (JEUX SÉRIEUX ET PRATIQUES D'ORIENTATION)

Contents

Introduction

The JSPO project (Jeux Sérieux et Pratiques d'Orientation) aims to support optimum use of serious games by encouraging the use of effective game-based devices, notably targeting those at risk of social and economic exclusion. The JSPO project focuses on the possibilities of using serious games in career guidance practice.

This E-book has been collated for the purpose of providing insight into the current status of serious games amongst professionals working with young people at risk of social or economic exclusion. While there is no one target audience, the aim is to provide a source of inspiration, or new ideas for those interested in serious games. By collating examples from across Europe, we are boosting the reach of different uses, methods, and structures of serious games. This e-book can be used as a guide for both those developing serious games, as well as those using them within educational or similar settings.

As these best practices are based on survey responses, and individual experiences and recommendations, this E-book will outline anecdotal best practices which can offer other inspiration and ideas to develop their own practices.

Methodology

The best practice examples within this E-book have been collected through interviews with education and careers professionals across the five partner organisations' countries.

Initially, a survey was sent out amongst contacts of all partner organisations. The survey was sent out to a wide variety of careers guides, teachers, and other staff who may engage young people with serious games. The questions focused on the current use, experience, and perceptions of serious games, and centred on the engagement of young people with serious games. Particularly relevant to the collection of best practices, the survey asked about different methods or strategies professionals used to engage the young people, and how these impacted on the value of the lessons, sessions, or appointments. The surveys were compiled on Google Forms and sent out via email, on social media and other online or digital communication platforms.

From the responses of the surveys, each partner organisation selected a small number of respondents for further interviews and collected data using a template for the case studies. Candidates for the follow-up interviews were selected through consideration of their testimonials in the survey. Selection of interview participants was based on whether their responses showed effective use, successful outcomes, and results, and significant pedagogical or psychological backing within preparation and implementation. Follow-up interviews were informal, and over email or phone correspondence which allowed each organisation to complete the templates and build best practice examples.

These best practice examples showcase the status, use, and perception of serious games amongst some professionals. The cases included here are anecdotal examples, rather than best practice at a national level.

European Best Practices

France

Best Practice Example 1: Guidance professional to students of all ages

Name (if there is one) and country of origin	"L'avenir s'imagine!" Group orientation session by a guidance professional /ONISEP staff FRANCE
Target group (e.g. NEETs, age range, school students etc.)	accessible to everyone without geographical or age restriction.

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

The practice includes the administration of "L'avenir s'imagine!" which introduce users to the career choices, this game aims to raise awareness of career choice, helping the users to explore their own. Through this game the participants complete missions on Earth and on an imaginary planet while watching videos of professionals describing their jobs completing some quizzes after each video.
"L'avenir s'imagine" is only available in French, on the following link:
https://www.lavenirsimagine.com . Due to the number of people and countries that speak French (as their official or co-official language) as well as the lack of restrictions to participate on this game, it can be implemented inside and outside of France.

Methodology: What setting is it used in? What are the main strengths, challenges and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

In group sessions, its necessary to use computers whether at home or at school in an IT classroom. The gamers must fulfil all the information required which will be later used to contact him/her in case he/she has won the production contest.
Before taking the gamers into the IT classroom the guidance professional verify:
that there's no restriction on the internet use as this game uses videos linked to Onisep website.
The gamers should have helmets/headsets, or the computers have any sound output to listen the videos and the explanation all along the game.
Once this was verified all the computers must be set on "L'avenir s'imagine!" website, and the guidance professional will start with a brainstorming about careers and professions. During the brainstorming, Onisep encourages the guidance professional to discuss gender equality and to take a moment to explain that there is no gender-determined profession. After this brainstorming, the guidance professional will explain that at the end of the game the gamers must imagine a profession in 20 years, based on their imagination they have to write down or create a video explaining how this profession is going to be useful. Throughout this process the guidance professional must be present in case of difficulties (technical or comprehension).

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Once the game is over, the player is invited to post a production (text or multimedia) to prove that he/she has acquired the knowledge of what a job is, and that he/she has thought about a future job in a world where gender equality is a reality. This production will allow them to participate in the contest and win prizes.

The strength of this practice is that "L'avenir s'imagine!" has being designed to motivate the reasoning process on the gamer, while playing the gamer's discovering new professions and the professionals of each profession explain what it is to be working on that field. A simple a very clear interface allows the gamer to complete all the missions. One strength that might be as well a limitation is that every year the subject of the game changes, in order to keep the gamers motivation for the next year subject but none of the previous edition can be use again which probably make it hard to implement any time longer than the current year.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

"L'avenir s'imagine!" feedback from one of the members of Onisep staff: "this game leads to an independent approach through a game-based pedagogy where the gamer voluntary appropriates this learning approach even outside orientational sessions".

The game itself has been designed to discuss about gender equality, and gender-based professions, which will be reinforced at the end of the game where the gamer is invited to create an imaginary profession in a gender-equal society.

The quality of this practice is assured by the collaboration between Onisep and the professionals, that might have assisted to previous "L'avenir s'imagine!" sessions. But at the same time the game was built to be easy to use and Onisep distributes the "livret pedagogique" that explain step by step how to lead a game session.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target groups?

As it was previously mentioned, "L'avenir s'imagine!" is only available in French but due to its lack of geographical or age restrictions to participate, everyone can sign up and complete the missions, this is an inclusive game in which previous outside France participants has won prizes, proving that their productions (posted at the end of the game) are considered by the members of the jury.

It may not be easy to implement in non-French speakers' countries but its dynamic of using a game to introduce professions using videos of professionals presenting their jobs can be a source of inspiration for futures games in other countries.

Best Practice Example 2: Teacher or Counsellor to students of all ages

Name (if there is one) **and country of origin**	**"L'avenir s'imagine!"** **Group orientation session by a highschool teacher /ONISEP staff**

	FRANCE
Target group (e.g. NEETs, age range, school students etc.)	accessible to everyone without geographical or age restriction.

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

The practice includes the administration of "L'avenir s'imagine!" which introduce users to the career choices, this game aims to raise awareness of career choice, helping the users to explore their own. Through this game the participants complete missions on Earth and on an imaginary planet while watching videos of professionals describing their jobs completing some quizzes after each video.

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During the Covid-19 pandemic ONISEP staff was able to implement a distance session held by the principal teacher of one class proving that "l'avenir s'imagine!" was both intuitive for the students and easy to use for a first time use teacher.

This distance assistance can be used as an innovation area to use/introduce serious games where geographical distances might be a difficulty to consider.

Methodology: What setting is it used in? What are the main strengths, challenges, and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

In group sessions, its necessary to use computers whether at home or at school in an IT classroom. The gamers must fulfil all the information required which will be later used to contact him/her in case he/she has won the production contest.

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The students must have helmets/headsets, or the computers have any sound output to listen the videos and the explanation all along the game.

Once this was verified all the computers must be set on "L'avenir s'imagine!" website, and the teacher/professional will start with a brainstorming about careers and professions.

During the brainstorming, Onisep encourages teachers to discuss gender equality and to take a moment to explain that there is no gender-determined profession.

After this brainstorming, the teacher will explain that at the end of the game the gamers must imagine a profession in 20 years, based on their imagination they must write down or create a video explaining how this profession is going to be useful. Throughout this process the teacher must be present in case of difficulties (technical or comprehension).

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Italy

Best Practice Example 1: Teacher/ Counsellor to Secondary School Students (14-19 years old), and University Students

Name (if there is one) **and country of origin**	**GEM Guidance and Entrepreneurship Mind-Sets through Games** **Individual online administration by a guidance professional**

	Italy
Target group (e.g. NEETs, age range, school students etc.)	High school students (age range 14-19 years old) and university students

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

The practice includes the administration of GEM, an online serious game which introduces users to the surrounding world, through the exploration of some professions and the transversal skills that all these professionals need to carry out their work successfully.

The objective of the game is to explore the world of work. GEM guides users in a journey through different work scenarios: in each of them, they will dress the "clothes" of a specific occupation dealing with different situations in which they will have to choose the behaviour they consider most appropriate. This activity therefore allows both to begin the exploration of the external world and to stimulate self-awareness.

GEM is freely available at the following link: http://www.gemgame.eu

GEM is available in three languages: Italian, English, and Spanish. The application of GEM is implemented at regional and national levels but its availability in different languages could contribute to implement this practice also at international level.

During the Covid-19 pandemic the possibility to administer GEM online has allowed professionals to reach students at distance, continuing with guidance interventions.

The areas of innovations are relative to the possibility to use this serious game, that is very simple and intuitive, also in guidance practice online through the facilitation of the guidance professional.

Methodology: What setting is it used in? What are the main strengths, challenges and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

For this online application in individual modality, the user and the professional set a meeting online through a platform for online meetings as for example Google Meet. The necessary supports for user are only computer, tablet or laptop connected to the internet. The access to the game is free inserting name of user, schools or university and nations.

The user will need to open up an internet browser and head to http://www.gemgame.eu to access the GEM game.

The user will then be taken to the GEM home page.

User will then go to the next screen where he/she can choose one of 10 games to complete, each game is focused on different professions. GEM includes ten professions to choose from: scientist, chef, singer, tour guide, building architect, software developer, physiotherapist, engineer, air traffic controller and fashion designer. User should then choose which profession he/she wants to examine by clicking on one of the icons.

After having clicked on an icon, the user will go through 10 different scenarios that someone may experience in that job, and the user will be given 3 possible answers. The user will need to think about how to answer the scenario, choose the fitting answer, and then click next.

Once a user has completed all 10 scenarios, he/she will receive a certificate. The certificate reports a GEM score against seven different skills; Teamwork, Taking Initiative, Creativity, Responsibility, Perseverance, Self-confidence and Problem Solving.

Users and professionals jointly discuss the results of the game. It is critical to underline to the user that GEM is not a test, it is a game that the user plays to explore skills and professions in a fun and engaging way. It will allow users to improve awareness of skills that will help them prepare for their future, also for different jobs.

The main strengths of this practice is that this serious game is very simple and intuitive with a very clear interface. Users have the possibility to autonomously play the game also online and at distance. The potential limitation could be linked to the importance to clearly underline that GEM does not give a profile but rather a "photo" of the user. A key aspect is thus the interaction with the professional and the process of facilitation. The key success factors are the immediacy and ease of play that at the same time opens the possibility of reflection for a greater awareness for users.

The resources and requirements needed to multiply this service/approach into other organisations is minimal regarding the necessary support for users that are only computer, tablet or laptop connected to the internet. However, it is very important to adequately train professionals for the process of facilitation in accompanying this practice for the application online in individual modality of the serious game GEM.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

Users that complete GEM in this online individual modality underline in particular the value of the serious game for the possibility to experience different working situations facing specific difficulties. Furthermore, the game permits users to acquire more awareness on their skills for the future. Professionals underlined the immediacy of the games and the possibility to use as an instrument to complement guidance interventions. The serious game can impact the careers guidance process being a simple instrument that nevertheless permits an in-depth reflection on the skills of users necessary to construct their future. This online individual modality can permit to reach many users particularly if the conditions connected to Covid-19 pandemic will remain in the future period and in any case will offer opportunity for online guidance interventions. The effectiveness of GEM was empirically studied in our European Erasmus plus project Jeux Serieux et Pratiques d'Orientation (JPSO - Games2Guide) including a control group and the administration of quantitative and qualitative instruments at T1 (before the application the serious game GEM) and at T2 (after the application of the serious game GEM).

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target groups?

As underlined above, the serious game GEM is available in Italian, English, and Spanish languages and it could be easily translated and implemented also in other languages. So, this

practice could be transferred also to other countries. This practice could be also used with different serious games paying attention to the aspect of the training of guidance professionals for the facilitation of the awareness of users. The practice could be extended also to different target groups as for example students with an age range from 11 to 13 years and also with specific targets as NEETs.

Best Practice Example 2: Teacher/ Counsellor to Secondary School Students (14-19 years old)

Name (if there is one) **and country of origin**	**GEM Guidance and Entrepreneurship Mind-Sets through Games** **Group online administration by a teacher in classroom** **Italy**
Target group (e.g. NEETs, age range, school students etc.)	High school students (age range 14-19 years old)

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

The practice includes the administration of GEM, an online serious game (http://www.gemgame.eu) which permits students to explore various occupations and soft skills in a fun and engaging way. It allows students to improve awareness of skills important for their future in relation to team working, initiative, creativity, problem solving, responsibility, determination.

GEM is available in three languages: Italian, English, and Spanish. The application of GEM is implemented at regional and national levels but its availability in different languages could contribute to implement this practice also at international level also for this group modality.

With reference to a best practice of application of GEM through group online administration by a teacher in the classroom, this serious game was administered in some classes of an Italian high school in the period just before the onset of the Covid-19 pandemic.

The areas of innovations are relative to the possibility for teachers to use this serious game that is very simple and intuitive for favouring the self-awareness of their students regarding skills that could be useful in their future. This serious game is innovative also because it can be easily used by properly trained teachers with a group of students in the reality of their classes.

Methodology: What setting is it used in? What are the main strengths, challenges and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

For this application (group online administration by a teacher in the classroom), the students use the devices in the computer room of the school or in absence of this possibility, they can also use their mobile phones.
The students will need to open up an internet browser and head to http://www.gemgame.eu to access the GEM game. The students freely access the game by inserting the name of user, school and nation. They play the game choosing among 10 scenarios relative to 10

occupations. At the end of the game they obtain their results with gems for each of the examined skills.

To introduce GEM to students, teachers could use a specific entertaining and informative video that presents the different skills used in GEM and provides examples of these skills in real life. The video can be accessed through the link: www.gemgame.eu/skills. Teachers can also introduce GEM to students in the classroom through a concise explanation of the game and its objectives. It is important that teachers explain to students that there is no right or wrong answer, because every answer represents a choice to use different skills. GEM was designed to allow students to explore different options in solving real problems.

The main strengths of this practice is relative to the fact that GEM is easy to use for students and it is not necessary that they have complex informatic competence. The same also for teachers that could have available an instrument for guidance in schools. The potential limitation is that teachers have to be aware that to administer this serious game they need to be trained in relation to the facilitation of the awareness process for their students. On the one side, the key success factors of this practice is the possibility for teachers to easily apply this serious game in the reality of their classes after a specific training, on the other side, the usefulness that students perceive after playing GEM, regarding a greater reflection on their competences for their future.

The resources and requirements needed to multiply this service/approach into other schools is minimal regarding the necessary support for users that are only computer, tablet, laptop or also mobile phone connected to the internet. However, it is fundamental that teachers receive specific training to administer this game.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

Students gladly play GEM, finding it fun and intuitive. Furthermore, this game permits them to reflect on their skills for their future. Teachers underline the value of having an easy serious game that attracts and involves students and at the same time permits them to focus and reflect on important skills for the construction of their future career path. The serious game can impact the careers guidance process being a simple instrument that can be used also with the facilitation of teachers in the reality of their classes extending the possibility for guidance moments also during school time. This online group administration modality by a teacher in classroom permits to reach a large number of students in schools. A contribution to the study of the effectiveness of GEM was given in our European Erasmus plus project Jeux Sérieux et Pratiques d'Orientation (JPSO - Games2Guide) that included a control group and the administration of quantitative and qualitative instruments at T1 (before the application the serious game GEM) and at T2 (after the application of the serious game GEM).

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target groups?

The group modality of GEM administration could be extended to guidance context and could be conducted by guidance professionals. This modality could be also extended to other

countries. We have GEM in Italian, English, and Spanish languages but this serious game could be translated also in other languages. The diffusion of this group modality of GEM administration could enhance the possibility for students to early reflect on their skills for future and also to enhance their awareness on the possibility offered by guidance interventions thus increasing their desire to access guidance interventions offered by professionals.

This practice could be extended also to other target groups as for example students (age range from 11 to 13 years), university students and also with specific targets as NEETs.

Best Practice Example 3: Teacher/ Counsellor to University Students

Name (if there is one) **and country of origin**	**GEM Guidance and Entrepreneurship Mind-Sets through Games** **Online available link for university students** **Italy**
Target group (e.g. NEETs, age range, school students etc.)	University students

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

This practice regards an experience in the academic reality that implies the use of the serious game GEM made known and available for students. The implemented level is local. The practice was realized during the Covid-19 pandemic. The areas of innovation regard the extension of the application of this serious game to the target of university students but also the fact that for students of discipline such as psychology play this serious game is an opportunity to reflect on their skills for the future on the one side but on the other side also a possibility to experience as future possible guidance professionals a concrete innovative instrument to be used in their future practice.

Methodology: What setting is it used in? What are the main strengths, challenges and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

The link (http://www.gemgame.eu) of the GEM serious game has been put on the online platform for didactics of the University so students could have access to it. Also in this case students can freely access to the game by inserting the name of the user, school or university and nation. After completing the serious game students have the possibility if they want to have a group online meeting with a trained lecture where to discuss and talk about the serious game. The main strengths are relative to the fact that the serious game is freely available for students and that they can experience it with this double point of view that is students for the construction of their future career path or as future professionals. The potential limitation could be that many students do not ask for feedback, and there is no complete control over usage. Resources and requirements needed to multiply this service are minimal because it is sufficient to put the link of GEM on many different online courses and could be easily extended to other different universities.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

The university students that accessed GEM think that the game is useful both for a reflection on their skills and for a greater awareness in the construction of their own career.
Also lectures underlined the value of these serious games for the reflection of students about their future.
Using this serious game contributes to early processes of career guidance.
This practice allows it to reach many university students because the link is available on the platform of the courses that they daily access for their university lessons. GEM was empirically studied with high school students in our European Erasmus plus project Jeux Sérieux et Pratiques d'Orientation (JPSO - Games2Guide) including a control group and the administration of quantitative and qualitative instruments at T1 (before the application the serious game GEM) and at T2 (after the application of the serious game GEM). Regarding this specific practice a system for monitoring the effective use of the game by university students could be implemented.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target groups?

This practice could be easily transferred to other universities because only the link of GEM will be put on existing online platforms for didactics. Also in this case, this practice could be also extended to other countries. GEM is available in Italian, English, and Spanish languages but this serious game could be translated and implemented also in other languages. This practice could be extended to other serious games and also to other target groups for example putting the link of GEM on the website of many different institutions.

Portugal

Best Practice Example 1[1]: Teacher / Counsellor to young people aged 14-20 at risk of social exclusion

Name (if there is one) **and country of origin**	"InKluD - Playing to Develop Employability Skills", Portugal
Target group (e.g. NEETs, age range, school students etc.)	Young people aged between 14 and 20, with low schooling levels and in a situation or at risk of social exclusion

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[1] Adapted from:
https://repositorioaberto.uab.pt/bitstream/10400.2/9447/1/JOGOS_DIGITAIS_E_PROMO%C3%83%E2%80%A1%C3%83%C6%92O_DE_SOFT_SKILLS_EM_JOVENS.pdf

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

The development of this game was based on the needs presented by a set of social technicians of the Non-Governmental Organization, Caritas of Terceira Island (CIT), who intervene with young people with low schooling and in a situation or risk of social exclusion, due to problems with justice, psychoactive substance abuse, socio-economic difficulties, difficulties of parental control, among others. These technicians intervene in a set of actions that are mainly based on the promotion of personal and social skills, individual and group psychosocial support, school tutoring and vocational guidance and monitoring in real workplaces. In this logic, it was requested the development of a resource that could support these technicians, in the promotion of skills for greater employability of these young people (soft skills). The creation of this game was preceded by an exploration of the behaviours and perceptions that these technicians and young people have about videogames and their use in educational and social intervention contexts. To this end, two adapted versions of the survey Video Games and Skills Development (Lopes & Oliveira, 2012) were applied to 17 technicians and teachers of the CIT and 59 young people intervened by the same institution. Two sessions of focus group interviews were also conducted with these professionals. A contextual and specific needs analysis was also carried out. Thus, naturalistic observations of vocational guidance sessions in the classroom and a set of meetings with some of the technicians who would in the future apply the resource were carried out. The general problem detected refers to the need to develop a set of personal and social skills. Professionals indicate that these young people show little flexibility, namely in a working context when they are doing traineeships. They present problems of assiduity, punctuality and difficulty in understanding the other person's point of view. They also tend to think that others exploit them (namely superiors), have serious difficulties in communicating, asking for help, taking orders, dealing with conflicts and have little initiative. Therefore, it was considered necessary to create a set of skills that promote a more assertive communication, help to better deal with criticism, to plan for a short and medium term, to negotiate and manage emotions and to develop greater self-control. Taking into account the limitations of the computer systems of the application contexts (namely school classrooms), neither sound nor video was used in this first prototype. The narrative and initial game design of the game was developed in December 2014, in partnership with two of the technicians who would subsequently apply the game. The editing of the game took place between January and February 2015. The scenarios were first modelled in 3D using the free version of the software "SketchUp Make" and, converted into 2D. Some characters were recycled from open source games shared on the official page of "eAdventure", others form developed from scratch using the software "CrazyTalk Animator 3". For the graphic editing of the 2D images, version 2.6 of the free and open source software "GIMP" was used. All the final edition of the game was developed using version 1.5 RC4 of the "eAdventure" editor, also free and open source.

Methodology: What setting is it used in? What are the main strengths, challenges and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

The InKluD game was created to be applied to young people aged between 14 and 21.

The aim was to support professionals in promoting Personal and Social Skills for better inclusion of young people in the target group.

Description:

The protagonist of the game has been hired to manage a branch of a real estate company. For several years, this branch was run by the same person who left just because of retirement; the player will have to manage to fit in and impose himself as manager, satisfy the clients' needs and achieve the goals of the parent company. Based on a set of situations that may occur within the company (each situation corresponds to a level), the player has to carry out a set of actions that will help him to be promoted and avoid being fired. The initial version was made up of 5 levels: Level 0 - Learning how to navigate the game; Level 1 - Dealing with a complaint; Level 2- Dealing with the situation of not being accepted by your subordinates; Level 3- Asking for help from a subordinate; Level 4- Dealing with criticism from your superior. This is a 3rd person point-and-click graphic adventure that promotes the development of Role Plays in real situations and is based on choosing the best sentence among several answer options. Apart from the Protagonist, the following characters also appear in the game: the Secretary, the Customer, the Friend, the Saleswoman and the Boss. The narrative takes place in the following scenarios: Protagonist's Office, Salesmen's Office; Boss's Office; Corridor; Service Room; Bar and Outside.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

Despite the simplicity of this prototype, according to the perspective of the professionals and the young people who participated in these sessions, playability (the player's experience during interaction with the game systems) seems to be assured, as most of them consider the game objectives to be clear, the rules consistent, the feedback adequate, the rewards and punishments sufficient and appropriate. With regard to the challenges presented, although most of the young people consider them to be good (48%) or very good (18%), one of the professionals disagrees stating that "the correct questions were too obvious", an opinion shared by some of the young people in the focus group interviews. Although the professionals considered that the game provides entertainment to the players, a considerable number of young people observed that the game has shortcomings in terms of provoking emotions and in its capacity to amuse. According to what was possible to verify in the interviews, for young people what amused them the most while playing the game was the dialogues presented in the game, namely the possibility to choose some answers, which despite being wrong, were humorous. The professionals had some doubts regarding the capacity of the game experience, from player to player, stating that the game should vary more, depending on the answers given. They also had doubts regarding the ability of the player to use the game more than once, taking into consideration the evidence of the correct answers. The fact that the game is played in isolation makes professionals consider that it does not allow competition, nor cooperation.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

In general, professionals consider the game to be "userfriendly", easy to use and that it can be used in different contexts and groups without the need for major changes.

One of the added values of the use of games in the promotion of skills is the capacity for autonomous use and the possibility of repeating actions until the objectives are achieved. In this context, it can be seen that the professionals consider that the game allows this autonomous use and 32% of the young people indicate that the game is good and 16% say that it is very good in allowing them to repeat actions until they reach the objectives. The professionals consider that it was possible to incorporate a more comprehensive learning situation into the game, which, according to the young people, made it possible to promote the discussion of situations similar to those which occurred in their placements and to transfer the game situations to real life. The professionals observe that the session in which this game was incorporated promoted greater motivation among students, although some consider that the prototype does not allow for a progressive acquisition of knowledge, does not allow for a personalised learning process according to the students' profile and "should have more diversified challenges, depending on the target group". All professionals indicated that they would use this game again in other intervention settings, while only one of them would not use digital games with interventional objectives in another type of intervention, clarifying "only if supported by a pedagogical partner, given my limitation with technologies.

In addition to gaining a deeper understanding of the young people's perceptions of the game and its implementation, the focus group interviews also served to receive suggestions for new situations/levels that could be implemented in future versions of the game. Of the various suggestions, we highlight some that seem to have some relevance: "(...) the possibility before working in the company, to look among several advertisements and go to job interviews (...)"; "(...) to choose the clothes one takes to the interview (...)"; "(...) work on similar situations that may occur, but outside the workplace, at home or with friends (...); "(...) start in the game as an employee and not as a boss and go on evolving (...)"; (...) having to decide between going to work or going out with friends (...)".

Taking into account the suggestions made by the young people, we are discussing with the technicians who applied the game, the creation of new levels that allow the promotion of other skills for employability. After this refinement of the prototype, we intend to validate this new version during 2017.

Best Practice Example 2[2]: Teacher / Counsellor to young male offenders aged 14-16

Name (if there is one) **and country of origin**	"Xplore: Get Real! Portugal
Target group (e.g. NEETs, age range, school students etc.)	young men between the ages of 14 and 16 who have already committed an offence

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[2] Adapted from: https://repositorio-aberto.up.pt/bitstream/10216/124214/2/367228.pdf

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

Young men were chosen as the preferred target group because, according to a study by Stege, Van Lankveld and Spronck (2011), they are able to acquire knowledge better through games than by reading texts. It is therefore admitted that the digital medium and game format, may lead to a greater engagement on the part of young people in tasks related to vocational exploration. Furthermore, young males have a higher propensity to be more violent as well as commit crimes over a longer period of time (Eme, 2010; DeLisi & Vaughn, 2015) compared to the opposite sex. It is also underlined that the school dropout rate in Portugal is higher in males compared to the opposite sex (15.3%) as well as to the European Union average (12.1%) (PORDATA, 2018a, PORDATA, 2018b). Finally, it will also be crucial to stress that the female gender is more motivated through learning by text than by play (Stege, et.al, 2011).

This game was designed so that young people do not feel pressured to make an immediate choice, but a procedural one, so it seeks to encourage them to explore their interests, as well as professional areas that they may not have had the opportunity to consider yet through game dynamics that progressively allow them to better organize the information that they may acquire through the game experience. It was intended, in this way, to fill the gap that some authors consider to exist regarding the conditions available to them to make a vocational choice (Martins, 2015; Martins & Carvalho, 2018). This gap refers to the lack of information about the various professions and a limited range of choices, which prevents them from making a fully informed decision (Martins, 2015; Martins & Carvalho, 2018). In addition, it seems important to involve young people in this process in all aspects, whether emotional, cognitive and behavioural (Fredricks et al., 2004). Thus, it was considered that adapting the game environment to the reality of the target young people was essential, since a more practical activity ends up being more motivating for these young people than a more hypothetical scenario (Loughead et.al., 1995, Martins & Carvalho, 2015). In this way, interest in the activity is stimulated, which, by promoting concentration and focus, will be more likely to generate (self)learning and culminate in an experience of satisfaction at the end of the game (Shernoff, et al., 2014). It is therefore assumed, as outlined, that the game in question positively influences the intrinsic motivation of these young people, which may make them perform the activities in a more interested and fluid way (Deci & Ryan, 1985). Another element intended to be enhanced through this game is game flow. In this sense, it was introduced the figure of a xplore master who, besides giving information to the player, also provides immediate and consistent feedback, so that the player can enjoy the game in a balanced way, with a constant adequacy between the capabilities of the player and the difficulty of the tasks to be performed so as not to cause a state of anxiety or boredom.

Methodology: What setting is it used in? What are the main strengths, challenges and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

It is, therefore, a simulation game, as it will mimic "real life", i.e. the academic reality as well as the labour market and all its associated components, allowing young people to get in touch

*with the diversity of socio-professional reality. Initially, the main character, a young school leaver, finds himself in a fragile and disadvantaged position. He is currently being given the chance to rehabilitate himself after some crimes he has committed and has been given a mission: to recover his life through his dreams. However, he must return to school in search of the path which leads to his dream, make it come true and succeed in becoming employed, building up a professional path. Initially, the young person will be able to personalise his character according to the various tools that will be given to him, from hair to shoes, never forgetting his personality traits. They will have the option to handle a bar, characteristics such as extroversion, organisation, impulsiveness, self-concept, on a scale of 1 to 7, in order to reflect on their own characteristics and the importance they may have in the academic context, as well as in the world of work. All these characteristics may change during the game, just like in real life, depending on the activities and the level of commitment you show during the game. You will have two forms of rewards at your disposal, **xplotis**, which will work as a game economy and **career points**, which will show the player how much he has already progressed in a certain level. To remain active in the game, you must maintain positive values in both rewards, otherwise the game will end.*

*It is then intended that the young person will go through three main stages: the completion of their compulsory academic course, the exploration of careers and, finally, the decision. Each level of the game will correspond to one year of the player's life. At each level, the player will have to set objectives for himself, according to a script provided by the game appropriate to the phase he is in. These objectives will have varying degrees of difficulty with different rewards in both game economies, correlated in a positive way. By selecting the objectives, you are committing yourself to meeting them by the end of the level. If you succeed in achieving the goals you have set yourself, you will get more points; if you don't succeed, you still have the opportunity to do so, but you lose **career points**. In this way the young person can visualise as well as plan the future in a more realistic way. Initially, he will be guided by an individual mentor, called **xplore master**, similarly to Youth @ Work (Hummel, et al., 2018) who will provide guidance as well as seek to assist the young person in building his path. At this moment, and also based on the PADI (Leitão, 1993, 1994 as cited in Leitão & Miguel, 2004) and BBT (Achntich, 1971 as cited in Leitão, 1987), the subject will have multiple options of careers at his disposal, and may consider them as pleasant, unpleasant or with no opinion towards them. After this exploration of preferences, the options that he did not consider interesting will be eliminated from the range of possibilities. The ones you consider to have no opinion will be put aside, but not completely discarded. After this exploration of preferences, the options that do not interest you will be eliminated from the range of possibilities. In this way, initiating this exploration at an early stage will allow the young person to engage positively in an activity that will prove attractive to them (Csikszentimihalyi et al, 2014). After completing compulsory education, the player is ready to opt for a wide range of professional activities of their choice, similarly to MeTycoon (Dunwell, et.al, 2013). In this way, young people can choose to try out one or several previously chosen careers through an internship with a limited period of time, and the more internships they participate in, the more career points they earn, being this a way of promoting exploratory behaviour (Campos & Coimbra, 1991; Leitão e Miguel, 2004). At this point they may continue to build their CV based on their*

personal characteristics, which they formulated at the beginning of the game, and may complete it with some competences they consider they have for a particular professional occupation. After entering the internships they will be offered several tasks, which will increase in difficulty over time. With this, it is intended to maintain an optimal balance between the changing capabilities of the player and the tasks to be performed (Deci & Ryan, 1985, Blumstein & Flum, 1999, Ryan & Deci, 2000), creating conditions for the player to achieve the desired state of flow and involvement in the game, i.e., a state that challenges him, but does not induce him into a state of anxiety (Csikszentmihalyi, 2014). During this growth, players will be tested with the various difficulties of the world of work (e.g. dismissals due to lack of funds to pay salaries, requests to work without pay). In this sense, by experiencing difficulties, the player will receive "tempting" proposals that may make him commit illicit acts. If the player makes this choice, although he may continue to earn xplotis, he will lose career points. If the player does not back out of the dishonest conduct, the game will come to an end. At this point, similarly to MeTycoon (Dunwell, et.al, 2013), the player will be directed to a video of a former recidivist who will share their experience in order to sensitise the player to avoid the behaviour. However, if you do not reoffend in the criminal conduct/practices, you can continue to explore the remaining stages you have applied for.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

At the end of each stage, there will be a short questionnaire with only two questions aimed at exploring subjective perceptions regarding interests and competences - the first being "how interested are you in this profession?" and the second " what is the degree to which you have the personal characteristics and competences to do well in this profession?"- with only two possible answers, "high" or "low". In this way, and depending on the answers, you can fit them into four possible categories. In this way you will be able to understand if you should continue, given the high probability of obtaining satisfaction and success through the option made if the answer to both questions is "high"; develop if you have a high interest but a low perception of competence - this development occurs in the sense of increasing your competence in the area of interest or, if unable to do so, this interest could be understood as being expressed in a leisure activity; explore new areas of interest in order to apply his competences if he has a low interest, but a high perception of competence; or avoid the experienced area if the answers to both questions are "low", since it will not bring him any added value. (Leitão and Miguel, 2004). In this way, the young person will be able to assess what he considers most pertinent to keep in his range of possible choices. It will not be, therefore, an algorithm that will provide the young person with information about which career path they should follow, but rather a process of self-exploration that will make the young person understand the path that they consider to be the most profitable and pleasurable for them (Campos & Coimbra, 1991). At the end of all the stages, the player will be able to visualise all the options he has been making with the respective evaluation made in the previous stage. In this way, he will be able to understand which option will be the most personally significant for him. Then, he will have three options: he may go on to higher education, according to his preferences; he may look

for a job, according to the conditions required by each entity; or, if he does not choose any of the above, he may, based on the history of his interaction with the game, be suggested an internship in an area not yet explored, either of the options which he found enjoyable but did not invest in, or of those in which he had no opinion, taking as an example what happens in The Real Game (Barns et al., 1999). If he chooses the later option, the process will be repeated from the beginning of the choice of placements. In this way the young person will be able to visualise other hypotheses which previously would not have been considered and possibly even discover new interests. At the end of all the work done, the young person will have a space to reflect on it, on his interests and on what he or she needs to do to follow a better path. The three hypotheses previously described will be the end of the game, since the aim of this proposal will be to make young people reflect on what to do in the future, with the proper information. In short, it is hoped that the young person will become involved in school by exploring an area of interest to them, possibly reducing the likelihood that they will drop out of the education/training system.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

This is a simulation game which, by seeking to balance the player's abilities and the difficulty of the task, will allow the young person to explore multiple possibilities for professional achievement, to which access to the education/training system is a fundamental requirement. Firstly, it could be a much more economical tool to use with these young people, as well as innovative, which could arouse the interest of both students and teachers and other education professionals involved in this area of intervention. Furthermore, it could be a complementary activity within an intervention, with regular integration occasions. In this way, it may enhance group discussions, frameworks of personal meaning, as well as explore the relationship of the young person with the set of dimensions (cognitive, affective as well as behavioural) (Campos & Coimbra, 1991). It is also pertinent to point out that if video games are already considered something that arouses interest by themselves, it seems interesting to introduce a variable of this kind to attract them to something so important in the (re)organisation of their path: the choice of an education/profession. In this sense, in addition to performing a task that will be completely controlled/determined by them, it may set up a flow experience due to the interest and pleasure resulting from it (Csikszentimihalyi, 1975).
However, its limitations must also be acknowledged. Firstly, for reasons related to difficulties in gaining authorised access to young people with the profile of the game's target audience, it was not possible to involve members of the target audience in the game creation process as planned. In fact, in methodological terms, it was planned to conduct two focus group sessions addressing various topics related to the construction of the game and which would have allowed young people to actively participate and influence the options regarding its design. To this end, a formal request for authorization was addressed to the Direção Geral de Reinserção e Serviços Prisionais (DGRSP) for access to young people residing in one of the Educational Centres; however, this collaboration was not achieved. It is considered that this is a huge gap, given the importance that the contribution of these young people would assume in the adjustment of the scenarios, mechanics and economy of the game to their own needs. A

greater participation of them would result in a game more tailored to the characteristics and interests profile of the target audience, which was only indirectly accessed through the results of the (few) previous studies related to the theme of this work. For this reason, we must consider that the game proposal presented is still relatively incipient and modest, and would need improvements that, although they remain open, would require (1) a graphic layout that would allow a more concrete visualization of the game; (2) direct consultation with a group of young people representing the potential beneficiaries, namely through the use of focus group methodologies, which would allow, on the basis of this model, the discussion of some of the structuring options of the game, with a view to evaluating the degree to which it would have acceptable attributes with regard to on the one hand, the expectation of promoting vocational exploration and, by that means, reinforcing the involvement of young people with school and preventing school abandonment and, on the other hand, the capacity to trigger the experience of game flow as a condition for the achievement of the objectives mentioned above.

Spain

Best Practice Example 1: Teacher/Counsellor in Primary School (3 to 12 years old)

Name (if there is one) and country of origin	Spain
Target group (e.g., NEETs, age range, school students etc.)	Primary School (3 to 12 years old)

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

I use serious games to teach and evaluate my own students in primary school. I started using them more in the last 3 years and usually at least once-twice per week I propose a S.G.
Since in my case they are primary school students, they like to play games instead of doing less dynamic and more monotonous written worksheets.

Methodology: What setting is it used in? What are the main strengths, challenges, and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

The serious games favour the acquisition of knowledge in digital environments, and according to their content, they may develop transversal competences.
The limitations: not all serious games achieve their purpose, and some may end up boring the students. The teacher should choose the most appropriate S.G. for each group of age and according to the goals he wants to achieve.
One potential limitation could be the length, the teacher should choose the appropriate length/duration according to the target/age of the students.
It is important to try to make them see it will be useful in their working and/or personal life=> the key success factor may depend on the students understanding the usefulness of doing the S.G.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

It is important to explain to students the methodology of the serious games and the objectives pursued and develop a good framework.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

Not all serious games are suitable for all contexts, so the teacher should choose the right S.G. depending on the target and should adapt it according to the aims he has with that target group.

Best Practice Example 2: Teacher/Counsellor to NEET and VET students

Name (if there is one) and country of origin	Spain
Target group (e.g., NEETs, age range, school students etc.)	NEETs, VET students

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?   *I have been using S.G. with NEETs for 3-5 years, but mostly in the last 2 years, and the S.G. I use are mostly related to giving orientation to them so as the students may discover their strengths and may choose the professions, they are good at.*   *With VET students I mostly use S.G. to evaluate and reinforce different skills.*   **Methodology:** What setting is it used in? What are the main strengths, challenges, and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?   *The key to their success is that the game "engages" them, and they find it useful, enjoyable, and rewarding. If they are "hooked" by the game, the greater will be the student's involvement. This is measured by direct contact with them, by anonymous surveys evaluating the quality of the training and by their marks in the course.*   **Impact:** Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?   *The S.G. may help students understand concepts and ideas, making them feel more comfortable, since it is an incentive for them, allowing them to learn, to discern, to use logic and to develop their abilities.*

I use those S.G. with content applicable to increasing the ability to understand and put into practice the logical sense for the student to get a positive orientation and impulse to go on, especially for the NEETs' progress.

The quality could be measured by the achievement of the objectives: if the overall objectives are met, then the quality should be considered as ensured.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

It is extremely important that the students understand the usefulness of the S.G., their results, how they can help them and that they see their results as applicable; if this is achieved, then the S.G. can be applied to any public/target.

Yes, anything that makes them think, reason, discern, differentiate, and becomes applicable to their evolution, day by day, is effective for any target group.

Best Practice Example 3: Teacher/Counsellor to Secondary School Students (12 to 18 years old)

Name (if there is one) **and country of origin**	Spain
Target group (e.g., NEETs, age range, school students etc.)	Secondary School Students (12 to 18)

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

Firstly, to get to know the students and see what their expectations are, you can start with brainstorming, a strategic and creative tool used to solve problems and propose ideas. It is also important to give importance to the development of cooperative work, project-based work in which a specific project aims to provide a response to a real problem. Flipped classroom, where the materials are studied at home by the young people and then worked on in the classroom. The S.G. are effective because results are seen, young people identify with these methods and show greater interest, leading them to acquire quality learning that allows them to orientate themselves. Motivation is the compass of learning, so motivating the students through S.G. it is the key.

Methodology: What setting is it used in? What are the main strengths, challenges, and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

Above all, their usefulness lies in technology or in materials that are more attractive and adapted for young people, since, by using different media to carry out activities, young people are more cognitively and socially stimulated, thus their motivation increases, and they become participants in their own learning. Most traditional methods are based on purely note learning in which reflection is not prioritised so much, therefore, it is important to

prioritise serious games in education and guidance; they contribute, they educate, they help, they stimulate, they make people reflect, they improve self-esteem and a host of other advantages that should be brought into the classroom.

As to potential limitations, when trying to bring in new methodologies adapted to young people, some teachers do not agree, as they had to devote a lot of time to such activities and opted for lectures.
There can be several factors for not choosing S.G.

> *1. Lack of interest*
> *2. Minimum salaries that do not cover the "overtime" hours.*
> *3. Little knowledge of the range of possible working methods.*
> *4. Little motivation to innovate*

On the other hand, the young people have never shown any resistance, on the contrary, they have always felt motivated to bring in new ideas and their performance has improved positively thanks to the S.G.
The main strengths of S.G. is their great adaptability towards young people and how they allow them not only to express themselves but also to reflect and help them in their decision making, and in the construction of their learning.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

For the S.G. to have an impact, we also must consider:
  -Correct lesson planning.
  -Coherent classroom layout.
  -Dividing the young people into small groups to allow them to develop fully.
  -The timing of activities.
  -Encouraging motivation and interaction between the educator and the learner.
  -Respecting the pace of learning
Of course, as long-lasting activities are prepared that allow for reflection and free thinking, so if you are consistent, if you organise the materials well and if you adapt them, it will be easier for the students to retain the information and internalise it. This way, the quality is ensured.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

First, we need to know our students well, and to know what their needs are, and from there, we can establish a certain S.G. practice or other. From my point of view, it is always better to introduce technological means, such as questionnaires by Kahoot, which are easy to be transferred to any context/target by adapting it.

Best Practice Example 4: Teacher/Counsellor to Secondary School Students (12 to 18 years old)

Name (if there is one) **and country of origin**	Spain
Target group (e.g., NEETs, age range, school students etc.)	Secondary School Students (12 to 18)

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?   *I use S.G. with Secondary school students. I have started using them years ago, but mostly in the last 2-3 years. The S.G. I use are adapted to the methodology of each class I give, to the age of the students and the aims of the class.*   **Methodology:** What setting is it used in? What are the main strengths, challenges, and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?   *In the serious games, the materials used are easier to adapt, ICTs are used which are a great advantage in learning, and by implementing these games we focus more on the young people, as we respond to their needs, which traditional media do not do, as they do not focus on a flexible methodology.*   *My experience has taught me that, with the serious games, young people feel included, they feel that they are part of something that allows them to develop, so I haven't had any major difficulties, when you put them first, their attitudes change completely, and they are more receptive.*   *The only difficulty to comment on is the short time available for these games, because they require a lot of planning and organisation. I think that if the timetables were more adjusted or if these games were implemented in the school space more regularly, young people would be more accustomed to these dynamics and the experience would be much more enriching. Before introducing any game, it is necessary to have a detailed planning of everything that must be done, and it is very important to always have a plan B, as the proposed activity does not always stick to what is expected.*   *Our aim is to guide, not to disorient, so first we must PLAN.*   **Impact:** Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?   *There are many strategies I use: To detect the previous knowledge of the youngsters and gradually involve them in the serious games, brainstorming or discussion-talks can be done.*

Yes, the principle of inclusivity must be applied, when there are different groups of young people, it is important to offer tools that allow them to develop and to consider their needs.

As to the different strategies used to engage different groups of young people with serious games, an important strategy (apart from all those mentioned above) is to give priority to cooperative work, prioritising oral presentations, debates, case studies, group interviews to encourage autonomy, coexistence among equals and the feeling of belonging to a group. This prepares them for professional life as well.

I believe that the use of serious games increases youth participation in mentoring programmes because it stimulates the critical spirit and the young people, by working with different methodologies where they are allowed to express themselves, lose their fear and as they progress, they feel more confident and retain everything more easily.

The main results are that young people are more motivated and more willing to work and learn. In the evaluation of the activities, it is important that the teacher allows the pupils to evaluate themselves and the pupils to evaluate each other. This is how quality is measured and guaranteed, allowing students to notice their own mistakes and to reflect on them to reach their full potential.

Although it is worth mentioning that the results of these serious games, which are a novelty in the education of our young people, will be seen in the long term.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

You can transfer it to all kinds of contexts, whether in a company, a university, a school, if you consider the age of the students and their needs, depending on that you will adapt this practice. As I mentioned, serious games have the quality of being very flexible.

UK

Best Practice Example 1: Teacher Counsellor to Secondary School Students (12 to 18 years old)

Name (if there is one) and country of origin	United Kingdom
Target group (e.g., NEETs, age range, school students etc.)	This practice has been used with those aged between 13 and 40, within schools and with adult group.
Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation? *I usually use serious games in a group setting, and when I plan to use serious games, I first ask for the group's opinion the week before about using the game. This ensures that they are aware of what we are doing in the next session and that they aren't unexpectedly asked to*	

play a game with everyone else. In the session the week before I will introduce them game to them, tell them what the game is about and how it works, why I think it will be beneficial for them to play the game and ask for their opinions. Here they can decide on if they do or do not want to play the game, but most of the time groups are happy to play games.

On the day of the group work we first start the session by creating a group contract. This is something that everyone has a role in creating and sets the rules for the group – for example 'don't talk over one another'. In addition, this is particularly important if any personal information or sensitive topics are brought up as we can include in the contract that topics discussed should not be shared outside of the room, and that everyone should be respectful.

After we have created the contract, we will play the game. In my sessions everyone has always participated in the games, and they seem to enjoy them. In general, the games seem to lead to wider discussions and opened people up, giving them the confidence to speak about certain topics as it is part of the game, rather than needing to put their hand up and have everyone focus on them.

After we have played the game, we will then have a reflection session where we discuss how everyone found it, what they learned from the game and their opinions on it. We will also discuss if they thought the game was age appropriate, if they want to play any other games around the same topic / if they have any suggestions for games and answer any other questions they have about the game. Often, we get mixed answers in this session, but I think it is important to have a reflection session.

In addition, sometimes before using a game in a classroom we will get a group of volunteers to trial the game first to gain their opinions before using it with the whole class.

Methodology: What setting is it used in? What are the main strengths, challenges, and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

I use serious games in group settings. I have often found that the way I use serious games opens people up – they are involved in the decision to play the games, the create a contract, they play the game and then have a reflection session. The games often promote discussion amongst all the participants and, as it is a game, it gives people to confidence to engage in the topic.

Using the games can be helpful as it can be a fun and engaging way to learn about the topic. Also, I have found that it created stronger group bonds as people are playing the game together and discussing the topic more than they would ordinarily.

I think that some people learn better using games. It depends on their learning style, but some people take information in more when they're doing something rather than just sat listening to someone or having to do written work.

Worked well – interesting approach to delivering information, good for low levels of literacy, suit different learning styles, small groups promote discussion, depends on learning style, good to have alternative methods for hard-to-reach people it can help, can help with healing and working through emotional difficulties, can be used for setting learning objectives, evidence of learning, safe space, confidentiality contracts, work best in group work in schools, careers ones

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

Some people prefer simulation to listening r reading or being taught at the front of a class. Simulation games seems to respond better to those who are autistic as they can do it on their own. One construction where they can do health and safety and that works for some but not for others – identify workplace hazards through a virtual experience. Seem to work better for low level learners.

Some learners gave feedback that if they would have just sat in a group and the questions were being asked, if around emotions, they wouldn't have spoken about it, but because it was a game where you use cards and move around and have a goal etc., they said that they felt more comfortable because everyone was taking part and all the focus wasn't on them.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

Some young people don't know what they want to do as a job it works well as it gives them ideas and they can be quite excited when they get their results and can see the kinds of careers they could do – they are interactive, and some people prefer working that way. Not sure how it would work in a classroom situation – some could take it as an excuse to mess about.

Best Practice Example 2: Teacher Counsellor to Secondary School Students (12 to 18 years old)

Name (if there is one) **and country of origin**	United Kingdom
Target group (e.g., NEETs, age range, school students etc.)	Mainly with school leavers and those at risk of becoming NEETs, so 15–16-year-olds, but sometimes with 14–15-year-olds.

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

When I use serious games, I tend to use them with students who are completely undecided about what they want to do in the future and don't have a clue of where to start, or with students who have two very different job ideas that they are interested in and don't know which to pursue. In both instances I would use the game in an individual setting.

Before the student plays the game, I emphasise that it is just a tool to help them think about their future career and that it can only guide them in their career choices, but it can be helpful. For example:

- *For students who are undecided about what they want to do, it can give them some ideas about jobs that they are suited for. This can often make them quite excited as they start to think about their future possibilities.*
- *For students who have two very different career paths it can help them decide which they are perhaps more suited to – for example if they are stuck between engineering or care-based careers, if the game shows that they are more suited to care roles that may help them decide that care is the best route for them to pursue.*
- *For any student it may highlight their skill and knowledge gaps around the career that they want and can inspire them to learn more about that particular sector.*

I think that using serious games can have particular benefit in schools which have students from underprivileged backgrounds as, in general, there is a narrower range of careers that they may be aware of how to pursue due to their parents having a limited range of careers. (This is in contract to those from higher privileged areas where their parents may come from a wide variety of careers). For these young people, introducing serious games may help to broaden their perspective to a wider range of careers and help to inspire them to pursue a career they may not have heard about before or thought of.

Methodology: What setting is it used in? What are the main strengths, challenges, and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

I use serious games in both individual as well as group settings. However, the game I use will impact on which setting it is best used in.

When doing group work it is better to use shorter games as well as games with very clear and easy to follow instructions. This make introducing careers fun and entertaining to a group of people and I have found it to be especially beneficial for those with special needs as it is a fun way to find out more about yourself and to engage students who may be difficult to engage. However, if the group is too large (20-30+) it can be difficult to effectively use serious games as everyone will be at different stages in the game. This is a reason why it is hard to use longer serious games in group settings.

For individual work it is easier to use serious games as I can offer support and go through any analysis with the student individually. In addition, individual settings allow me to introduce longer serious games to students. Each session I offer is 40 minutes and for many serious games this is not long enough to complete the full game, therefore in one session I can introduce the game to the student, they can play it in their own time, and then at the next session we can discuss their results and what they have learned from it. This is both a strength as well as a limitation, depending on the student and if they are happy playing the game in their own time.

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

I think that they like using the games. In individual settings it can really help young people learn about what they want to do, what they are good at, help them decide between career paths or just give them a couple of ideas. Lots of these games provide information or lists about a lot of careers, so is an effective tool to provide a starting point for young people to look up careers.

Perhaps in the group settings when the short games can be used, they may not get much from it in terms of learning about themselves and the careers they are most suited to, but they enjoy it and it is an entertaining and engaging introduction to thinking about careers, which helps to make the careers guidance process effective.

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?

This can easily be transferred into other contexts and the only resource needed is the serious game.

Annex 1: Google Forms Survey

https://docs.google.com/forms/d/1u3Mn3ig0_LB6MRIh7g7vFZJZfuOXu0nucdgz032_3_I/edit

JSPO survey - use of serious games

This survey has been developed to understand how serious games are used in careers guidance, the elements that make them effective and how you engage young people to use them. A serious game is a game that has an element of learning (making it serious) so refers to games used in education and careers guidance.

This survey will inform the research for the Erasmus+ funded JSPO/Games2Guide project (project number 2018-1-FR01-KA201-048216) to help us develop an eBook of best practices in engaging young people to use serious games and a recommendations report for serious game developers.

For all uses of this data in the eBook and recommendations report you will remain anonymous. We ask for your name and email address so that we can contact you if we would like to feature your practice in the eBook and need more detailed information.

Name *

Short answer text

Organisation *

Short answer text

Job Title *

Short answer text

Email address *

Short answer text

Q1. How often do you use serious games with young people? *

Long answer text

Q2. What elements of serious games makes them useful - what do they provide that traditional *
means do not?

Long answer text

Q3. Have you had any difficulty using serious games or resistance from young people? (please *
provide examples) Why do you think that may be?

Long answer text

Q4. How do you introduce serious games into careers guidance/education? *

Long answer text

Q5. Can you describe the strategies that you use to engage young people in using serious *
games? (Please answer this in as much detail as possible).

Long answer text

Q6. How and why are they effective? *

Long answer text

Q7. Do you use different strategies to engage different / diverse groups of young people with *
serious games? If so, what are they?

Long answer text

Q8. Does the use of serious games increase retention of young people on guidance/education   *
programmes?

Long answer text

Q9. What additional content / elements would you like to see in future serious games? *

Long answer text

Q10. Is there anything else you would like to tell us? *

Long answer text

Annex 2: Best Practice Methodology Template

Aspect	Data	Comment	Evidence	Follow-up / application
1. Preparatory:	1a. background: - age, ability, language competence, learning style, impairment, etc.			
	1b. identified learning goal/s.			
	1c. individual or group play or both?			
	1d. technical requirements (e.g., on-line, or off-line) & practicalities (e.g., is progress saved?).			
2. Implementation:	2a. proven its relevance as an effective way in achieving the desired objective.			

	2b. it has been effectively adopted in an identifiable context.			
	2c. evidence of positive impact on individuals is present.			
	2d. should be able to be replicated in alternative contexts / environments.			
3. Psychological:	3a. appropriate balance of "fun" with tangible learning.			
	3b. evidence of retained interest / motivation to re-visit, e.g., concepts of progression & reward.			
	3c. responsive to variables such as gender, age, ability, personality and learning styles.			
	3d. in-built aspects to avoid isolation.			

4. Pedagogical	4a. evidence of a tangible methodological approach.			
	4b appropriate balance between time taken to learn the game and its educational benefit.			
	4c. evidence to links to, and impact on, other learning resources & materials.			
	4d. clear and appropriate assessment and evaluation processes.			

Annex 3: Best Practice Template

Name (if there is one) **and country of origin**	
Target group (e.g. NEETs, age range, school students etc.)	

Description: What is the practice? How does it take place? What level is it implemented (local, regional national etc.)? When did you start using this practice? Areas of innovation?

Methodology: What setting is it used in? What are the main strengths, challenges and potential limitations? What are the key success factors? Resources and requirements needed to multiply this service / approach into other organisations?

Impact: Feedback / testimonials from learners and staff. What are the main outcomes and results? How does using the serious game impact the careers guidance process? How many individuals are addressed? How is quality measured and assured?

Transferability: How can this practice be transferred into other contexts/ other countries? Can this practice be used with different serious games / different target group?