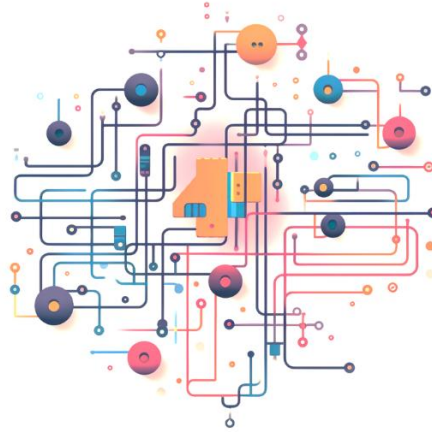




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Small-scale partnerships in vocational education and training



**INTELLEGIZE**

**Project: “Artificial Intelligence and Gamification in Vocational  
Training Guidance”**

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## **“Activity 6 – Interactive Guide Development” Report**

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## Introduction

Digital transformation is important today more than ever. In this context, all sectors are being influenced by technology and career guidance and counselling as well.

So, the only way to get benefitted by the technological evolution is to introduce the use of digital technologies in our work and activities.

And this is the reason that the ***Artificial Intelligence and Gamification in Vocational Training Guidance Project*** was designed: to innovate the operational tools of Guidance within the VET System and in particular in the partner organisations through the development of an expert system (web oriented App) that, takes advantage of artificial intelligence, enables operators to correctly and effectively assess the personal potential and skills of the users, improving the quality standards and the related Essential Performance Levels: user profiling check, evaluating potential and competences (soft and hard skills), skills needs analysis, definition of reintegration and/or upskilling and/or reskilling pathway.

Adapting the guidance practices to the digital changes and innovations of current society will modernize the VET practitioners' work and bring them closer to the needs of their target groups, so that they can be effective and in line with current and future needs of the economy and society.

Additionally, our aims at strengthening the digital skills of VET practitioners, that will contribute to their personal and professional growth.

In order to adapt the career guidance practices to the digital changes, the partnership designed and implemented an expert system (web-oriented app) that, by exploiting artificial intelligence and gamification, is able to support guidance practitioners in their professional practice, i.e. in assessing in a correctly and effectively way the personal potential and skills of users, improving their quality standards and the related Essential Performance Levels.

In this report ***the User Manual/Guide of the developed Artificial Intelligence Module is described.***



It was developed through an **interactive method** (web) that will allow administrators/counselors both to **simulate the real-time implementation of the Chatbot interactions** in order to create and manage the knowledge base appropriately and **to learn how to insert the backend side of the platform**.

The steps followed were the following:

1. Development of **Interactive manual /guide** on web platform (See Unit 1).



2. Development of **Operating Instructions for Gamification Scenarios** as a support tool for both the professional and the user in order to correctly apply and interpret the results. (See Unit 2).



## Unit 1: Development of Interactive manual /guide on web platform

In this activity the Interactive manual /guide on web platform was developed including the following steps:

- ✓ **"Interactive guide"** environment design via website
- ✓ dynamic and **interactive front-end implementation** to simulate chatbot/user interactions
- ✓ implementation of **training system** to understand reporting based on Kiviati diagram
- ✓ implementation of the **log system** to trace the tests performed and improve the use of the system
- ✓ **back-end implementation** for user training section modification
- ✓ **front-end implementation** to interact with the user guide

The development of the interactive manual represents a significant enhancement in *supporting users and administrators/counselors in understanding and utilizing the functionalities of the chatbot and gamified skill assessment tools.*

It can be reached at this link: [https://intellegize.eu/manual/en\\_GB](https://intellegize.eu/manual/en_GB)



Select language EN ▾

**Intellegize Manual**  
Our platform is designed to provide an interactive experience for users. The main objective is to assess the user's skills. Using chatbots and simulated scenarios, the platform creates an engaging environment in which users can assess their core competencies.

**Platform Objectives**

- Offer an immersive experience combining technology and gamification.
- Facilitate immersive learning through interactive scenarios.
- Provide detailed competency assessments based on choices and responses.
- Support a multilingual experience adaptable to different user needs.

**Main platform functionalities**

- ChatBot:** An interactive system that, through a series of randomly generated questions, assesses the user's skills based on the answers provided.
- Game:** Realistic situations created to test the user's skills in different contexts, with multiple choices.
- Skill Assessment:** Measurable competence feedback, with bar charts, Kiviati and ESG scores illustrating final results.

**Main Sections**

[Manual Administrator Section](https://intellegize.eu/security/login)  
[Go To Platform](https://intellegize.eu/security/login)

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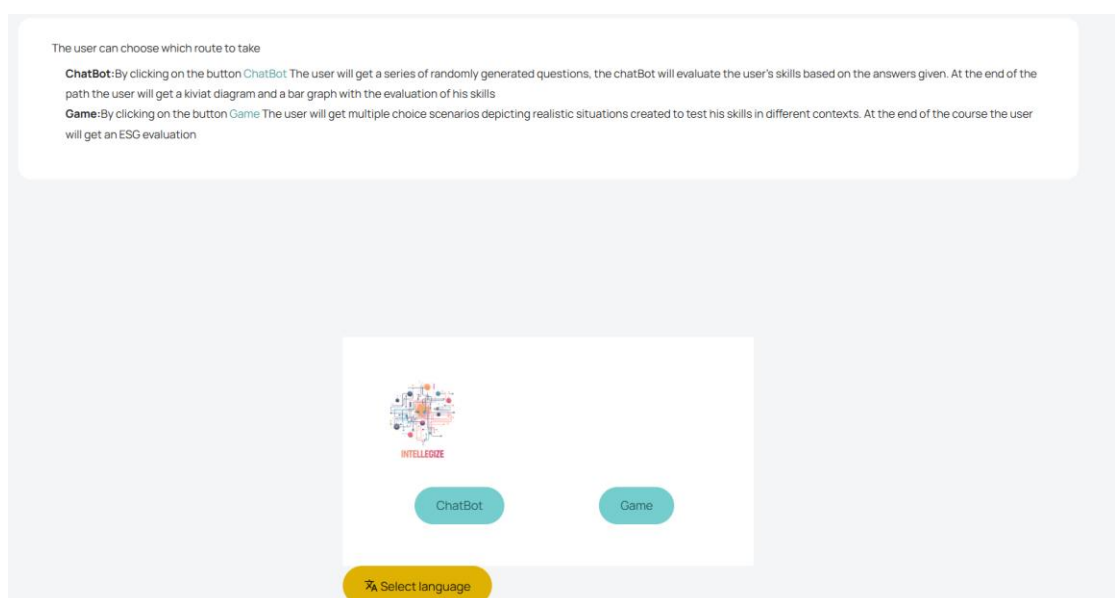
[Manual User Section](https://intellegize.eu/chatBot/select-lang)  
[Go To Platform](https://intellegize.eu/chatBot/select-lang)

## Key Features

1. **Mirrored Platform for Instructional Purposes:** The interactive manual is designed as a mirrored version of the original platform. This ensures users and administrators can navigate and experiment within a realistic environment while understanding the system's processes and features.



2. **User-Focused Instructions:** On the user side, each page of the platform clone includes, on the top of the page, detailed instructions explaining the purpose and functionality of specific tools. These instructions guide users through the steps of interacting with the chatbot and the game. Importantly, results generated during this guided process are not saved to any external database, maintaining the instructional nature of the manual.



In this section, a brief collection of user data is made to enable the results to be tracked. The required data are:

**Name**

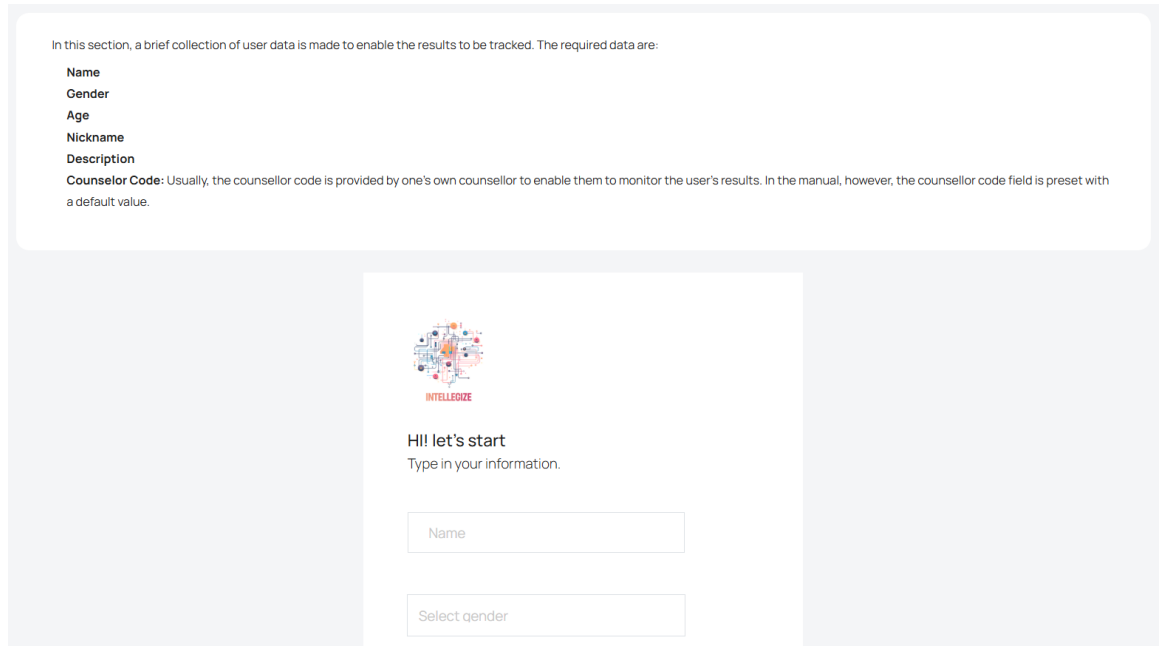
**Gender**

**Age**

**Nickname**

**Description**

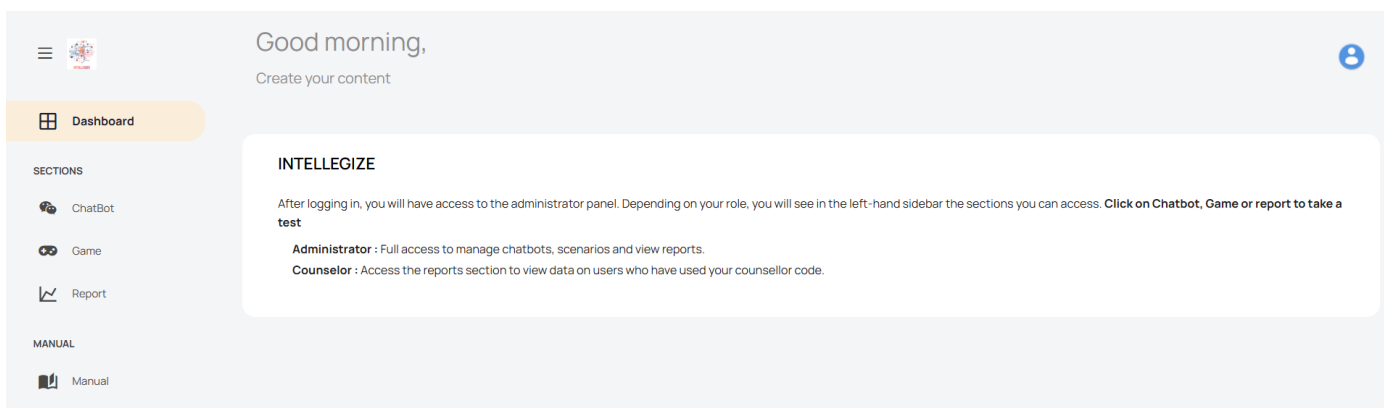
**Counselor Code:** Usually, the counsellor code is provided by one's own counsellor to enable them to monitor the user's results. In the manual, however, the counsellor code field is preset with a default value.



3. **Administrator/Counselor-Focused Instructions:** On the administrator/counselor side, the manual offers comprehensive guidance on creating chatbot questions and designing game scenarios.

Each page provides step-by-step instructions tailored to administrators/counselors' needs, ensuring they can simulate actions required for the real platform operation.

Similar to the user-side manual, no changes made within this environment are saved or impact the original platform, but only on the manual.



**Dashboard of the admin/counselor-side Manual**

The screenshot displays the 'ChatBot' section of the admin/counselor-side manual. The sidebar on the left includes 'Dashboard', 'SECTIONS' (ChatBot, Game, Report), and 'MANUAL' (Manual). The main content area features a 'Show 10 row' dropdown and a search bar. Below this, there are instructions for managing questions, including 'List of Questions', 'Creation of New Questions', 'Editing Questions', and 'Removing Questions'. A blue '+' button is visible in the top right corner. The 'ChatBot' section title is followed by a table with columns for 'ID', 'Text', and 'Actions'. One question is listed with ID '6' and the text 'You find yourself having to manage several deadlines at the same time. What do you do?'. The 'Actions' column contains 'Edit' and 'Remove' buttons. At the bottom, it says 'Shown 1 of 1 Questions'.

### Chatbot section of admin/counselor-side manual

By clicking on the blue “+” button on the upper right side of the page, the administrator/counselor will be able to create a new question for the chatbot. On the top of the page, admins/counselors will find detailed instructions explaining how to create a question, associate it to one or more skills, insert different answers and how to set a score (from -2 to +2) for each answer.

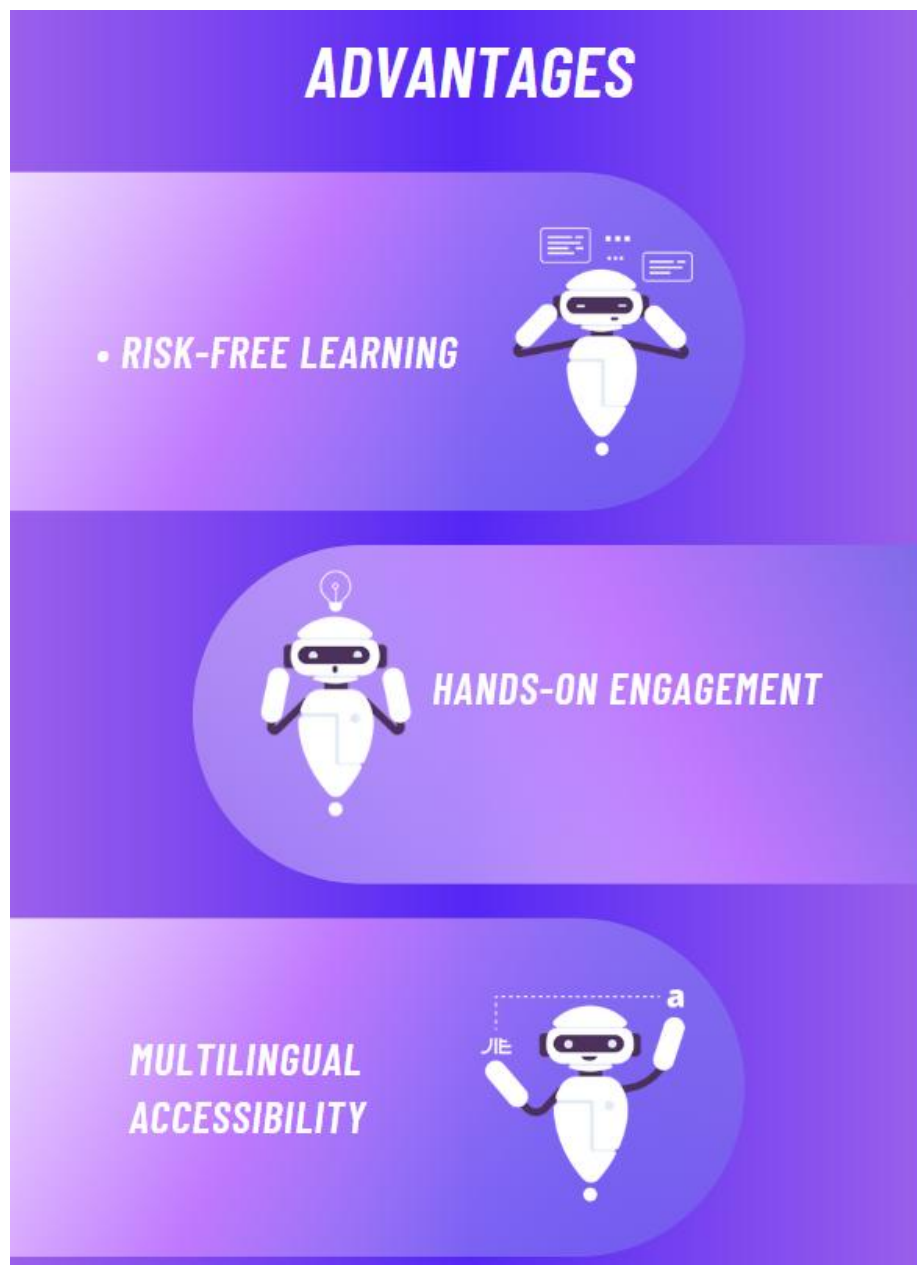
The screenshot displays the 'ChatBot' section of the admin/counselor-side manual, specifically the 'Create Question' form. The sidebar on the left includes 'Dashboard', 'SECTIONS' (ChatBot, Game, Report), and 'MANUAL' (Manual). The main content area features instructions for creating questions, including 'Question', 'Answer', 'Score', and 'Skills'. A list of skills is provided: Flexibility/Adaptability, Time Management, Problem solving, Team Work, Resilience - Stress Tolerance, Creativity, ICT & Digital, and English Language. The 'ChatBot' section title is followed by 'Create Question' and 'Question And Answer'. The form includes a 'Questions' field, two 'Answer' fields, and two 'Score' fields.

### Chatbot question creation panel



## Advantages

- **Risk-Free Learning:** Both users and administrators/counselors can explore the platform without fear of making errors that affect real platform operations.
- **Hands-On Engagement:** The interactive manual promotes active learning by allowing users to interact with the platform in a meaningful way.
- **Multilingual Accessibility:** As with the primary tools, the manual is available in English, Italian, and Greek, ensuring inclusivity.

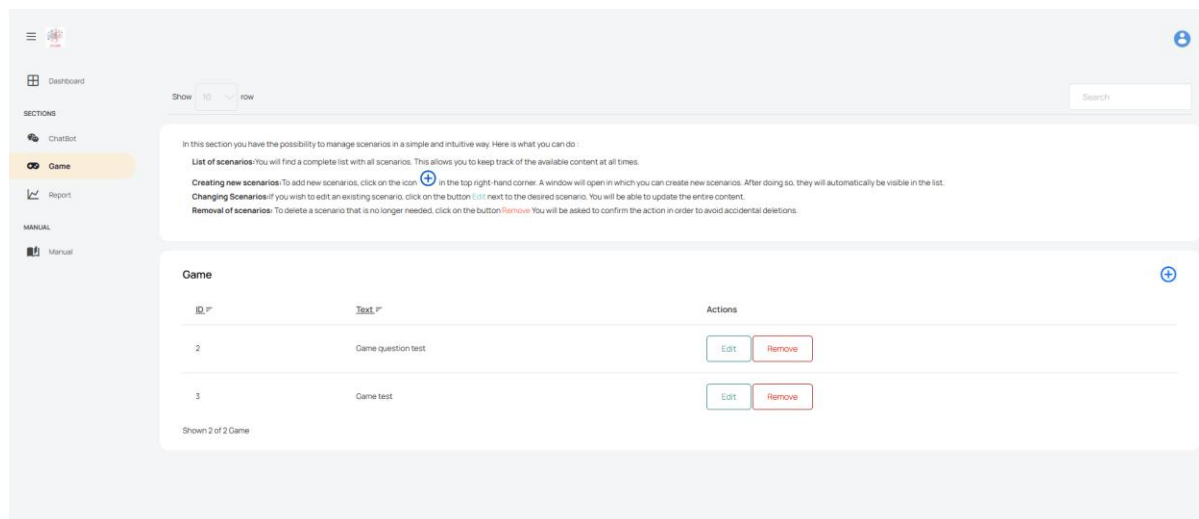


## Unit 2: Development of Operating Instructions for Gamification Scenarios

In this step, the specific focus of the project was the creation of operating instructions for gamification scenarios, designed to align with the broader goal of skill assessment and development.

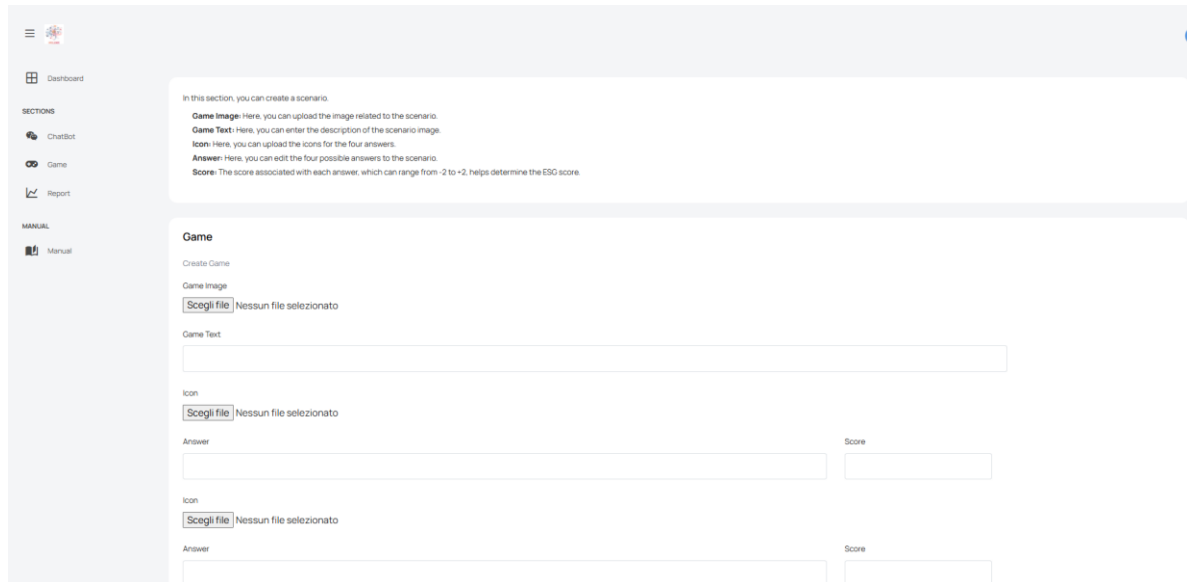
### Key Developments

**Gamification Scenario Overview:** The manual details the process of creating scenarios that engage users while assessing their skills. These scenarios integrate ESG (Environmental, Social, and Governance) principles and aim to evaluate competencies such as environmental awareness, social behaviours and everyday life situations.



Game scenarios section of admin-side manual

By clicking on the blue “+” button on the upper right side of the page, the administrator/counselor will be able to create a new scenario for the game. On the top of the page, admins/counselors will find detailed instructions explaining how to create a scenario by uploading an image, to set a score (from -2 to +2) for each answer and to upload a small image as an icon for each answer.



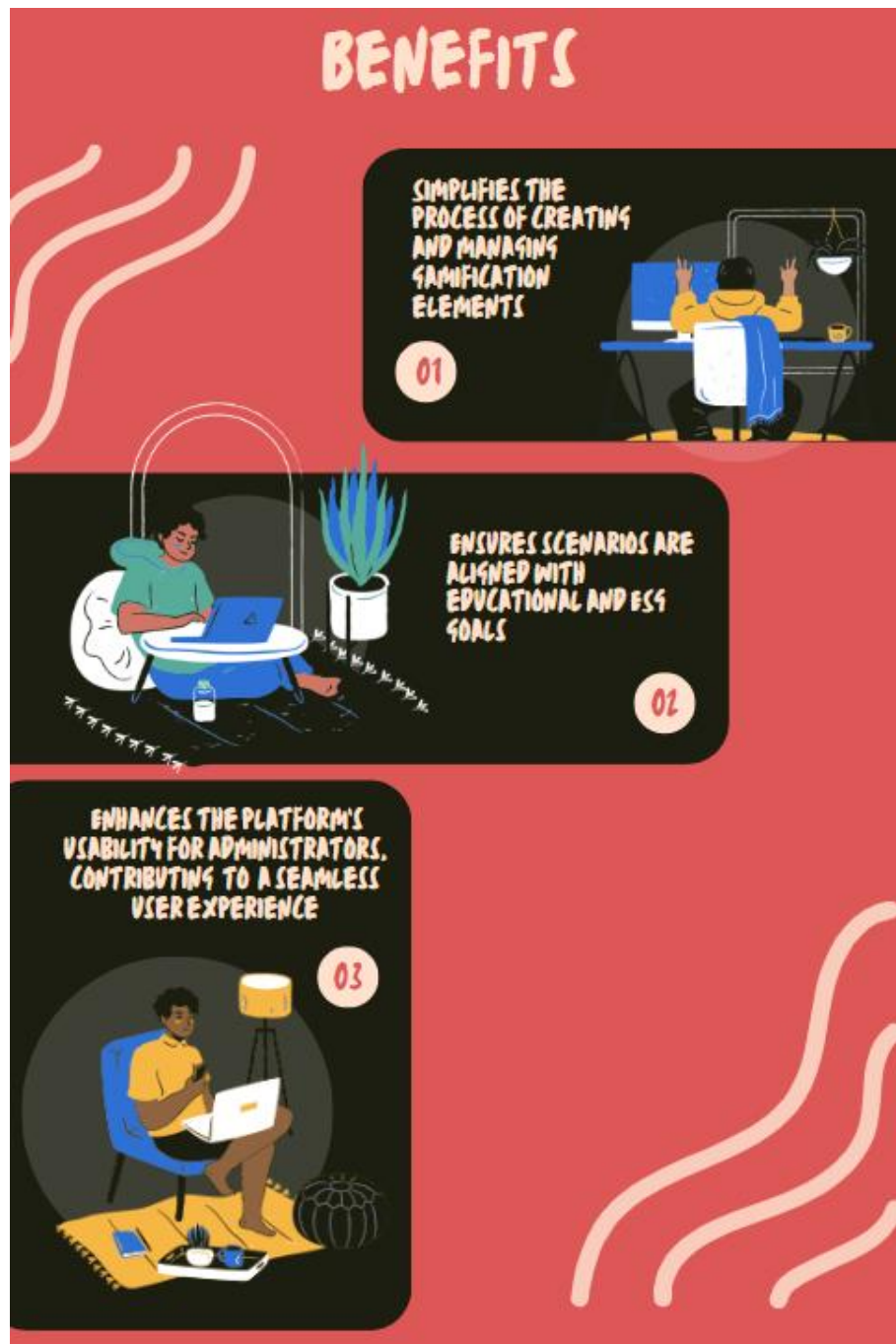
The screenshot shows the 'Create Game' interface. On the left is a sidebar with navigation options: Dashboard, Chatbot, Game, Report, and Manual. The main content area has a header with instructions: 'In this section, you can create a scenario. Game Image: Here, you can upload the image related to the scenario. Game Text: Here, you can enter the description of the scenario image. Icon: Here, you can upload the icons for the four answers. Answer: Here, you can edit the four possible answers to the scenario. Score: The score associated with each answer, which can range from -2 to +2, helps determine the ESG score.'

The 'Game' section contains the following form fields:

- Create Game**
- Game Image:** A file selection button labeled 'Scogli file' and the text 'Nessun file selezionato'.
- Game Text:** A large text input field.
- Icon:** A file selection button labeled 'Scogli file' and the text 'Nessun file selezionato'.
- Answer and Score:** Two pairs of input fields. Each pair consists of an 'Answer' field and a 'Score' field.
- Icon:** A second file selection button labeled 'Scogli file' and the text 'Nessun file selezionato'.
- Answer and Score:** A second pair of input fields for 'Answer' and 'Score'.

## Benefits of the Operating Instructions

- **Simplifies** the process of creating and managing gamification elements.
- **Ensures** scenarios are aligned with educational and ESG goals.
- **Enhances** the platform's usability for administrators, contributing to a seamless user experience.



## Conclusions

The integration of new digital tools, leveraging artificial intelligence, represents a **transformative step in modernizing career guidance processes**. The collaboration between Studio Risorse, Progressus, and ilInformatica has culminated in the development of innovative resources—specifically, an AI-powered chatbot and a gamified skill assessment platform—that address key challenges and opportunities in vocational guidance. These tools deliver significant value by combining user-centered design principles with advanced technology, enhancing the efficiency and effectiveness of career counseling practices.

### Key Achievements:

#### 1. Personalized and Comprehensive Skill Assessment

The AI chatbot offers a structured yet flexible framework for evaluating users' hard and soft skills. This ensures a comprehensive assessment tailored to the needs of career counselors, particularly when working with students and young professionals. The tool stands out for its ability to assess skills quickly and effectively while maintaining high-quality standards.

#### 2. Gamification for Engaging Learning and Assessment

The integration of gamification principles has enabled the creation of a game that assesses skills in a way that feels approachable and enjoyable. The focus on ESG (Environmental, Social, and Governance) criteria ensures the game not only evaluates competencies but also fosters awareness of sustainability and digital literacy. This innovative approach has made the skill assessment process more accessible and less intimidating for users.

#### 3. User-Friendly Interfaces and Multilingual Accessibility

Both tools feature simple, intuitive interfaces that prioritize user experience. By minimizing distractions and optimizing graphics, the platforms cater to diverse user groups, including young people and career counselors. The availability of the tools in English, Italian, and Greek ensures broad accessibility and inclusivity.

#### 4. Feedback-Driven Refinements

The iterative development process, which incorporated feedback from 30 vocational guidance professionals, allowed for significant improvements. Suggestions, such as the inclusion of explanatory legends, descriptive evaluations, and broader skill assessments, were incorporated to enhance the tools' utility and usability.

### Impact on Career Guidance Practices

The deployment of these digital tools has redefined the role of technology in career counselling. By automating routine processes, such as skills evaluation, these tools allow counsellors to focus on personalized advice and guidance. Furthermore, the innovative approach to user engagement aligns with contemporary expectations, especially among younger audiences who value interactive and visually appealing solutions.

### Recommendations and Future Directions

While the tools have demonstrated strong potential, ongoing enhancements will further increase their impact. Recommendations include:

- Expanding the range of skills assessed in the game to align more closely with labor market demands.
- Enhancing the visual design and functionality for better user engagement on mobile devices.
- Providing comprehensive guidance manuals and resources to maximize the tools' effectiveness.

In conclusion, the implementation of these AI-driven tools signifies a milestone in integrating technology into career guidance. By addressing critical user needs and emphasizing innovative design, these deliverables exemplify **how artificial intelligence can contribute to more effective, engaging, and sustainable career development processes.**

Select language EN ▾

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## Manual homepage

[https://intellegize.eu/manual/en\\_GB](https://intellegize.eu/manual/en_GB)