edugraal

Pedagogical Toolbox
Gameplay tools

Roadmap and guidelines to test your enigmas

Testing your steps, riddles and enigmas is an integral part of the design process of your educational adventure. It helps ensure not only that the practical aspects of the gamified story function properly but also that the target audience will find the activity engaging and educational. The goal of testing the enigmas is to refine the story design to make sure the final version is effective and coherent. To do that, you may use different tools and documents, such as a roadmap and a test form, explained on the next pages of this tool.

How to conduct tests

- **During the design process, consider the playability of your enigmas** with the help of questions to determine whether:
  1) The different game elements are compatible
  2) The enigmas meet your language and pedagogical objectives.
  Questions that can guide you in this process may include:
  Can this be replicated? Is it safe? Has it been adapted to the classroom and to the needs of students? Can the students use it autonomously? Do the elements function properly together?
- **After crafting your adventure, prepare a test form** with a list of tests that will be conducted for the different game elements, along with relevant questions to get tester feedback.
- **Select test teams** (if possible, include different tester profiles) and track their gameplay on a roadmap and their responses to the questions on the test form.
- **Allow suggestions and criticism** on improving the adventure and make modifications accordingly.
- **Use tester feedback to update your story** for the final version to be properly ready for students.

Roadmap

A roadmap is a strategic plan that defines your goal or desired outcome and includes the major steps needed to reach it. Depending on your preferences or whether it's your first time dabbling in storytelling, you may find it helpful to use a roadmap, or you may decide to jump into the adventure creation right away. Since building a gamified story can be a rather daunting and challenging experience for beginners, following a roadmap can help you build your adventure faster, have more fun and avoid any mistakes or omissions.

You can either use paper and a pencil or a computer. It might be preferable, however, to design the roadmap in an electronic form so that you can add clues or modify it from any device or share it with your colleagues.

There are no right and wrong roadmaps as long as they suit your needs and preferences. However, an effective roadmap would require the following steps:
1. **Sketch a captivating storyline**, i.e. the context of the adventure. Think about players, duration, overall theme, the goal of the game, objects to use, etc.
2. **Plan some mysterious puzzles and riddles** to make sure that your students will be immersed in their experience. Make decisions in relation to the puzzles you will include and how you intend to present them. You can even use post-it notes to convert your story plan and its details or steps.
3. **Build your adventure**, use your imagination, and include puzzles and equipment to put everything into practice.
4. **Make your story more immersive and interactive** by using audiovisual elements, adding decorative elements and themed graphics or physical material to create the appropriate atmosphere.

You might think it is time-consuming, but it actually helps you save time during the planning, creation and debriefing process, helps you structure and implement your adventure better and can be used as a guideline for any adventure you wish to create. The roadmap will also help you take into consideration the needs or any special requirements of students with specific learning disorders.

Test form

A test form can be used during the debrief stage of your adventure in parallel with the roadmap. Its purpose is to assist you in providing personalised feedback to students after having tracked their performances throughout the story.

It may take the form of a **gap-fill document**, such as a spreadsheet or any document you prefer, with the **list of all your adventure's steps** written down and space for comments and corrections. The form can also include questions to ask participants for specific feedback about each step they encounter or their general opinion about the activity, how entertaining, challenging, interesting, pertinent or engaging it was for each of them, and whether they have suggestions to improve it.

The test form may be used to:
- **Determine whether all enigmas were solvable** in the allotted time
- **Decide which enigmas should be altered or removed** (either because they did not suit students' proficiency levels or did not satisfy playability criteria)
- **Identify the roles students took on during the activity** and whether they worked to solve the enigmas collaboratively or if additional instructions or assigned roles need to be considered.
- **Make a note of whether the steps were both engaging and educational** enough to meet pedagogical goals and keep the participants' attention and motivation.

One possible restriction of such a tool would be making feedback too performance-based: Students could feel singled out for not performing as well as their classmates, so make sure feedback does not place too much importance on enigma-solving instead of the pedagogical goals or the effort and intention participants put into progressing throughout the story, whether individually or collaboratively. Be aware ahead of time of which steps might present challenges for students with SLDs (fine motor skill tasks, etc.) and adjust feedback accordingly.