



## **DigiEduHack Solution**

### **Trento - FabLab Unitrento and Apelab: Combining innovative methods of learning with a maker approach**

### **Challenge: Trento - FabLab Unitrento and Apelab: Combining innovative methods of learning with a maker approach Challenge 2021**

## **Dungeons & Learnings**

**This teaching tool save you from the boring old frontal lessons**

The app wants to improve collaboration and participation. For this purpose the students will be grouped in order to produce collective ideas. This strategy will also reduce the fear of making mistakes and feeling judged, because the ideas will be discussed by the group.

### **Team: Dungeons and Learning**

#### **Team members**

Daniele Giongo, Mattia Barile, Mattia Vaccari, Jacopo Zulpo

#### **Members roles and background**

Jacopo and Mattia B. identified the goals and the purpose of our solution explaining how it could resolve the critical problems.

Daniele and Mattia V. created the interface based on the previous discussion.

#### **Contact details**

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# Solution Details

## Solution description

The final product is a web app. In the context of middle-school after the pandemic there is disponibility of pc thanks to DAD, we want to encourage the use of these hardware not only for laboratory or call. The success of the solution can be measured by the numbers of the users of the web app weekly or monthly.

The teacher creates a session that will be shared through a randomly generated code. The number of participant groups is set by the teacher. Every student joins a team to cooperate and discuss together in order to come up with ideas, questions and solutions. In order to achieve this activity at its best we think that students must participate in an informal context, like a different position of desks and seats.

A session has multiple steps. First of all the teacher divides the class into groups and shows the board. When the number of participants is reached the session can start. In every session there can be multiple questions or topics or problems customized by the teacher, and every team can write answers, comments or solutions. The students can send hints and the teacher chooses if it is an important step for the solution or not. An incomplete solution/idea won't be ignored, it can be a start for others. This rewards every group, and so every student.

The question/problem is associated with a monster to slay, and the groups of students are associated with the eroes. The graphics are very simple, funny and blood-free. The hints will appear on screen so every group helps each other. Every time the teacher thinks that one of the hints is important can decrease the health bar of the monster. In conclusion: the teacher is the moderator and has the power and the will to use this tool as he wishes, in different activities.

## Solution context

We are facing problems from two different perspectives: student and teacher. For a student the classic and old way to teach is often boring and kills his motivation to study. In some cases a student can have a detached attitude or a shy personality or he fears the judgment of everyone whenever he speaks. This tool wants to solve these problems in a fun and stimulating way. From the point of view of a teacher there are these problems: a lot of effort to teach, lack of participation during his lessons, difficulty to take on delicate matters. Digital education is now a big reality and increasingly known by teachers. We want to be part of the change with this web app, helping both students and teachers with a win-win solution.

## Solution target group

Our solution is created for middle-school teachers. We want improve the use of active learning in lessons.

## Solution impact

The solution's impact concerns different qualitative aspects like attitude and feelings. The changement should be noticed by the teacher after using this digital tool; consequently students should be more interested and interactive during regular lessons, and maybe accomplish better

results. Our purpose isn't to change everything, but to help teachers do their job. We think of this app as a different and fun way to do a lesson, but it's not meant to be always used. In fact we want to improve the willingness of students to interact during the lesson. With the group-centered activity we also want to enhance social relationships and soft skills like teamwork.

### **Solution tweet text**

Do you want your students to take part in an epic battle against theoretical knowledge? Do you want to be their dungeon master of discussions and debates? Use D&L tool to do an active learning activity!

### **Solution innovativeness**

Our solution is a super simple, free to use web app, so it can be used from every device and without paying. Surely there are a lot of solutions that offer simple and complex tools for digital education, but our solution has the "fun" component. We think it is very original: it has a playful meaning because our idea was to create a relaxed and informal atmosphere where all the students can feel free to say and write whatever they think.

### **Solution transferability**

Our solution has a very playful meaning, so in the right context it can be surely used. We think about a funny presentation or an informal meeting. This tool can be used as a collaborative way to collect feedback or do a brainstorming.

### **Solution sustainability**

We think that a good option for the future of the solution is to let this tool remain in the ecosystem of the FabLab. The development won't be expensive because is a simple web app with few functions. We want to train people to send to school to discuss with teachers our ideas of active learning using our tool. For the graphics we have a lot of original ideas: one day buttons and backgrounds and sprites could be customized and all the characters could be changed: we think about things like the Christmas and Halloween theme. At UX level we think about implementing one day functions like rewards for the students and a database filled with templates shared by teachers from all the world.

### **Solution team work**

We work well together. We had different points of view and ideas, but we were able to discuss without fighting. Thanks to this we created a stimulating environment. In the future we can certainly continue to work together.