# DIGI TOOLBOX
*DIGITAL TOOLS FOR TEACHING*

DIGI SCHOOL

# GAME TOOLS

Co-funded by
the European Union

This Product has been conceived and developed by the partnership of the Digischool project.
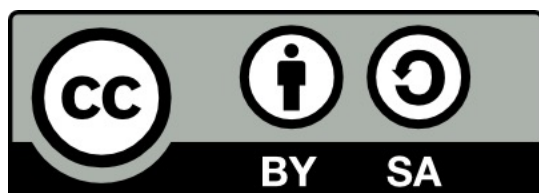
# SUMMARY

# INTRODUCTION

The Digi Toolbox is one of the products designed during the Erasmus+ Digischool 2021-1-DE02-KA220-VET-000033261 project, developed with the contribution of all project partners. The Digi Toolbox is a useful tool for teachers and trainers, who will be able to find descriptions of software, platforms and methodologies that can be used to make the learning process more engaging and efficient.

Each proposed tool will have a presentation card, through which the reader can immediately understand what type of software, game or site it is, if it is available in his/her native language and if it can be used in shared mode. The presentation card serves to provide simply and clearly the main information about an instrument, which is often not so easy to find on the official website.

Subsequently, each tool and methodology is explained in more detail with a description of the most important and interesting functions with the insertion of screen and video tutorials useful to better understand how it works.

The third section is that of tips and tricks in which the reader will find interesting ideas and tips to use the tool, even in an innovative way concerning the purposes for which it was created.

Since the toolkit is aimed at teachers and trainers, in drafting the contents, we thought it appropriate to add some more indications on how each tool can be useful for certain subjects and achieve specific learning outcomes.

The Digi Toolkit is a complex and rich guide that collects over 50 tools, so you just have to browse it and find the most effective ones for each need.

# LEGEND

### Language Icon
There will be the indication about the language available.

### Co-working Icon
The icon indicates if the tool ha a co-working mode.

### Free/Premium tool
There will be the indication if the tool has a free use mode or are available subscription mode.

### Operating System
There will be the indication if the tool work and is available on the most common operating system

### Level of difficulty
1 star indicates more complex tools.
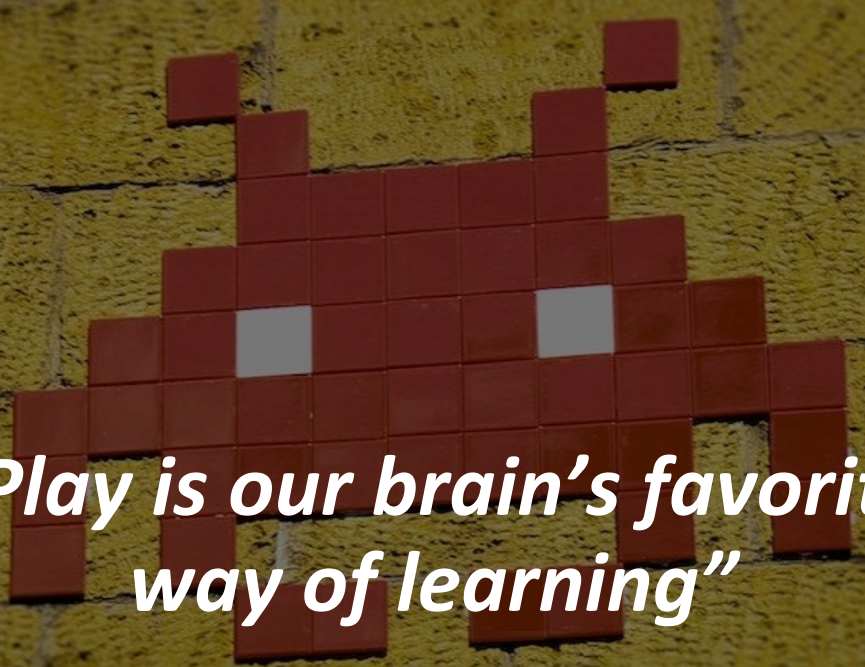5 stars indicate the easiest tools

### Previous Knowledge
Indication of previous knowledge needed to use the tool.

### Learning Disorder
The tool is useful to create contents friendly for students affected by Learning Disorders

*"Play is our brain's favorite way of learning"*

**Diane Ackerman**

# KAHOOT

## PRESENTATION SCHEDULE

The tool is available in most world languages, including: English, German, Spanish and Italian

Yes, teachers teaching the same subject or sharing the same classes can create group and share resources in the group

The website has both a free subscription and a premium one which unlocks a wide range of functions for contents creation. There are both individual and school subscriptions.

The platform is accessible from any operating system and search engine.

The platform doesn't require specific knowledge, just tha basics for ICT. The platform is quite confusionary so needs training to understand how to use it.

The platform can provide interesting supporting contents for students' with learning disorder

★ ★ ★ ★ ☆

# KAHOOT

## FUNCTION DESCRIPTION

The Kahoot platform is very famous for the creation of playful content for educational purposes: it is possible, in fact, on the platform to create games of different types to test the skills and knowledge of our students.
The home page of the site has several sections, including the section to explore content already created, the news section concerning platform updates or the description of the various resources available.
To access the functions of the platform, you must sign up with an email address, for free and in this way you can start creating your own content. As already mentioned, Kahoot is famous because it gives teachers the opportunity to create interactive games to engage their students through the use of their technological devices; now it also offers the possibility to create integrated courses with games and activities.
On Kahoot you can also find ready-made resources to be used on different topics and for different levels of education, looking among those created by other users or among those proposed by the platform partners.

Contents of this kind, will surely attract the attention of students because they combine active, game-based and digital learning which turn on their attention and curiosity.
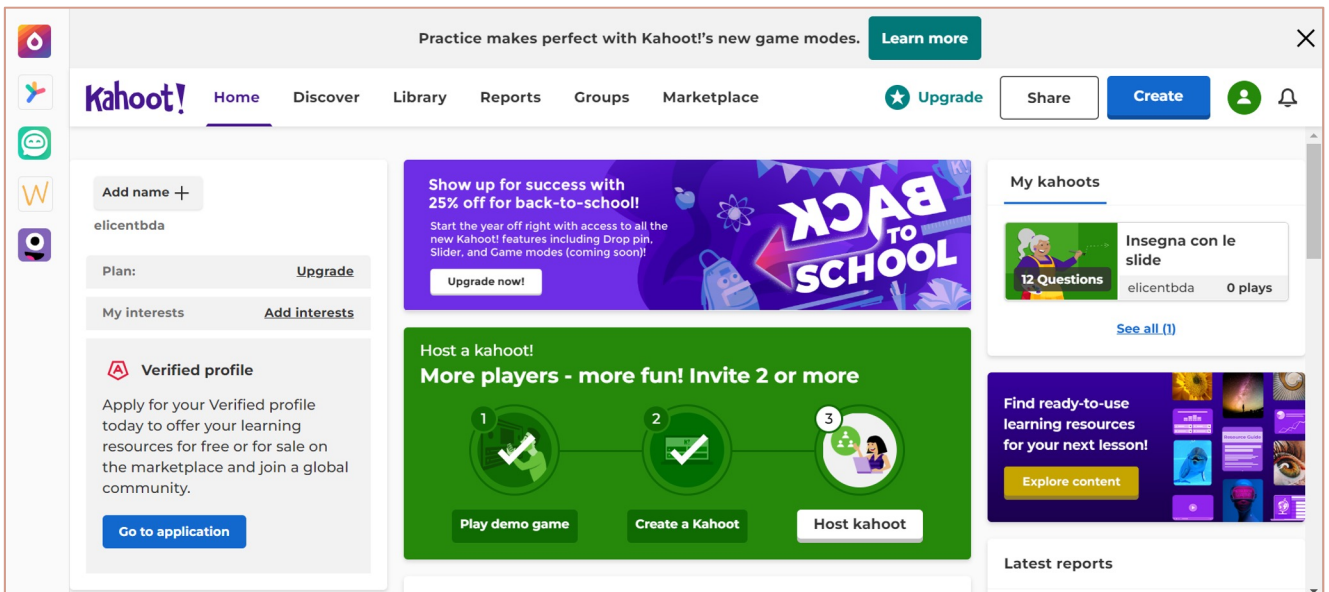To create your own content, Kahoot offers guided tours and gives guidance on how best to set up content.

## Logged in home page



This is the start page for a user who is logged in. At the top right, however, is the button to start creating a new Kahoot. In the Discover section you will find ready-made content, including those of official partners. The Library sections its Kahoots. The Reports section gives us game information about our Kahoots. The Groups section is for collaboration with colleagues.
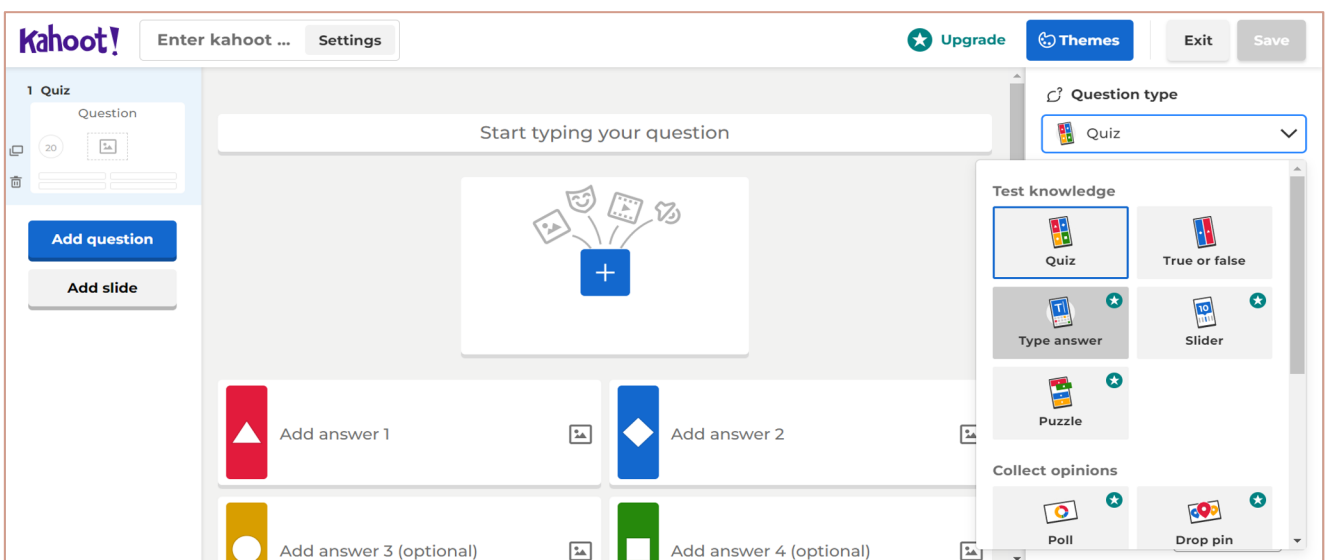


Kahoot game interface. The slot with a special markers are premium functions. Here you can create your own games personalizing the content as you prefer. It's possible to give a timing, add photos or multimedia content and choose between quiz and true and false.

# KAHOOT

- Kahoot has also different other tools integrated. One of them is Whiteboard.fi, which for free allows the user to create a virtual whiteboard without any registration for a limited time

  .
- The students are struggling with maths? Kahoot propose a specific section called Dragonbox which contains different games available for smartphones to help students learning math through games.
- If you are creating a plenty of content on Kahoot, you can decide to sell them on a Marketplace. There you can share the courses or the game you created and earn some money.
- On Kahoot you can choose also to search for contents according the subject or the level of education but it's possible also to follow other creators which you prefer the most.
- Why don't use cartoons of movies characters for teaching some subjects? On the Discovery section, you can find Marvel, Disney or Star Wars partnership and content created taking inspiration from them. For example you could talk about genetics using X-Men characters.

# LEARNING OBJECTIVES
&
# BENEFITS OF USING

- The platform offers the possibility of creating completely personalized content, therefore it responds to the needs of different levels of education and topics. It is possible to create content on all the subjects taught, also taking inspiration from existing content. There is also content for students with learning disabilities, just type in the search bar what interests us.
The platform proves to be a very useful tool to involve students in the dynamics of learning thanks to the game. It is demonstrated how the game actively involves the participant, who will learn the notions more effectively and with less effort.
Kahoot also supports the elimination of the prejudice of the use of smartphones: in this case they will no longer be sources of distraction, but useful objects for teaching.

# CLASSCRAFT

## PRESENTATION SCHEDULE

The platform is available in many languages (English, French, Spanish, German, Portuguese etc.)

The platform provides for team sharing and collaboration

There is a free and a premium version

Chrome, Safari, or Edge web browsers on your Windows or Mac computer or mobile device. It is possible also to access the game using a Chromebook with Google login.

Medium level of ICT knowledge is required

Increases motivation and involvement of students with learning disorders

# CLASSCRAFT

## FUNCTION DESCRIPTION

Classcraft is a role-playing game that allows the classroom to be transformed into a virtual reality. Each pupil has his or her own role and has to work in groups to perform missions and score points. With Classcraft, you can:

- Create a class and eventually divide students into teams
- Use tools such 'random events' to foster cooperation
- Assign missions that will be completed by doing the tasks (automatically by importing them from Google Classroom or manually)
- Use the messaging tool for collective and individual communication

To use Classcraft, you must register as a teacher, student, or parent selecting the voice sign up by Google, Facebook, Clever, Apple, Microsoft, Classlink or email. If you log in as a student or parent, you must enter an identification code for the virtual class previously created by a teacher. If you log in as a teacher, you will be able to create a virtual class by assigning a name.

Once the class has been created, it will be possible to organise the game. Once you create a new class, you can input your student list and start playing right away: no need for them to be invited or to create their own accounts. In the menu select the section

In the Game dashboard, you can add the chosen teams, pupils, and classes you have created. You can also proceed to create the characters that will then be assigned to the teams. To create a character, select set up character and choose between the options mage, healer or guardian. Students are given resources called crystals that they earn each time they level up in a mission.

# FUNCTION DESCRIPTION

Before starting with your class, it is recommended to play the demo version to understand all the platform functions. On the left-hand side of your dashboard you can view

- Your class divided into teams and see the individual characteristics of each student.
- View the [class tools](#) or features, a suite of features that you can use to gamify various aspects of your class to stimulate fun and engagement.
- A direct messaging system with both students and twins
- The teacher has a series of maps with adventures inside. The lesson is then seen as a path divided into stages.

The maps can be divided into different missions involving story (teaching), task and discussion with the classroom. By clicking, for example, on introduction and then on the adventure "Lightning Strikes Twice", it will be possible to modify the contents according to one's needs
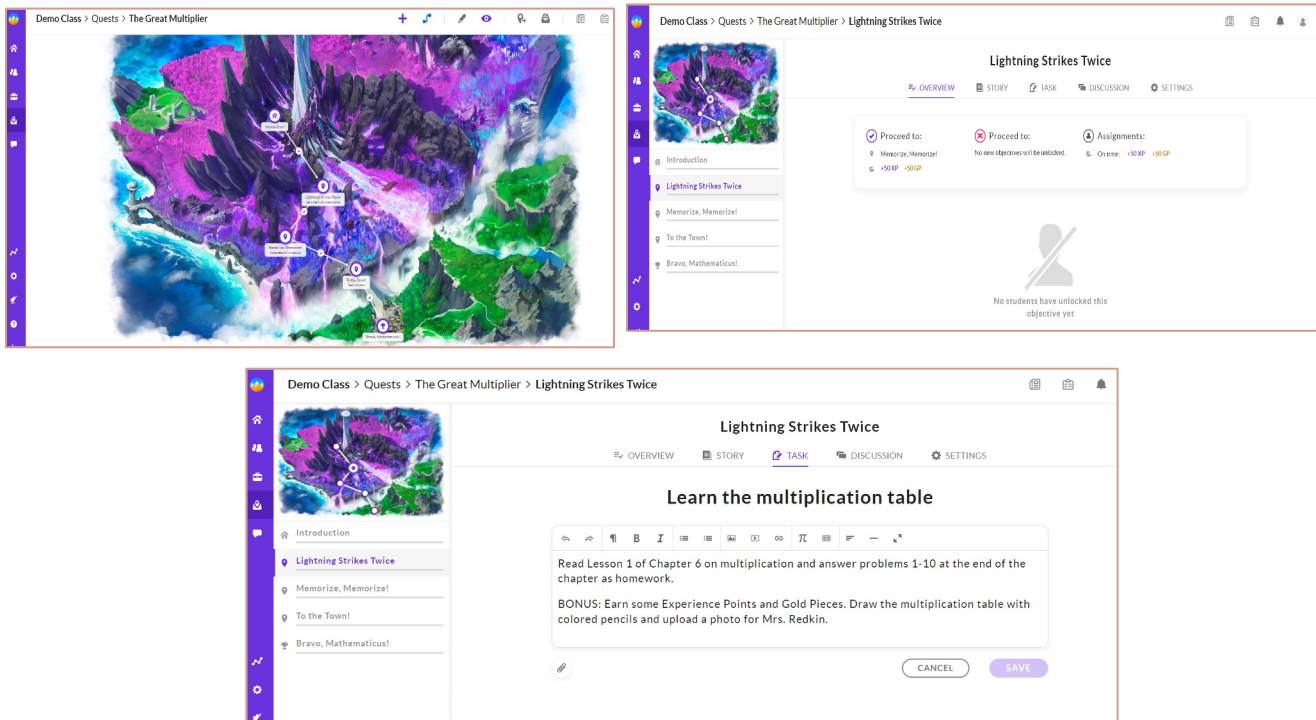


The platform is not difficult to use but it has many features and some practice is needed to use it to the full. In this respect, we suggest the tutorials offering by the Classcraft platforms.

# CLASSCRAFT

## TIPS AND TRICKS

- When you create a class, you'll be in the Introduction. You can't start playing until you complete this introduction.
- Parents are also part of the Classcraft adventure! By inviting them, you can help them keep up with what's happening in class with their child and, together, you can extend the game experience at home.
- In the free version is possible to select two tools:
  1. **Random Picker** allows you to choose a student or team at random to answer questions or to carry out group activities
  2. Volume Meters tracks noise levels in your classroom
- The class progression guides you through all the chapters with setup steps and tutorials. Except for when you're in the Introduction, the progress bar will automatically advance as you give Experience Points to your students
- The teacher can remove Hearts when a student misbehaves in class or as part of activities with the Class Tools
- The Experience Points are the points collected by students for behaving well and successfully completing Class Tools activities or Quests. When you see a student displaying a behavior you want to promote, give them some Experience Points.
- In section behaviors you'll find a list of all the behaviors (positive and negative) set up for this class. By clicking Add behavior, you can create a brand new behavior for your class

# LEARNING OBJECTIVES
&
# BENEFITS OF USING

- Develop critical, creative and computational thinking.

- Promote collaboration using a character class system, delivering classroom experiences at the forefront, and making winning a team experience, redefine the social dynamic classroom.

- Makes learning more engaging, thanks to gaming dynamics and the use of games that are part of students' everyday life.

- Teaches traditional subject matter in a more engaging way.

- A more meaningful learning experience that supports teaching SEL competencies and builds stronger relationships between students and positive culture.

- Learning becomes a way to encourage students to stand up for each other and feel empowered in the classroom and in life.

# FLIPPITY

## PRESENTATION SCHEDULE

The application is available in English but the contents can be adapted to your language

There is no limit to the number of users simultaneously using a Flippity link, but is not collaborative. Each user will have their own distinct version of the activity

Flippity is a free Google application. No registration is necessary.

It's been tested on Google Chrome, Mozilla Firefox, Apple Safari, and Microsoft Edge on a variety of computers, tablets, and phones.

Basic ICT skills

Flippity is a game-based learning application through simple activities that facilitate the learning of students with learning disorders

# FLIPPITY

## FUNCTION DESCRIPTION

Flippity is a site that makes it easy to turn Google spreadsheets, templates and templates into flashcards and educational games.

The site offers a range of ready-made educational activities: flashcards, quizzes, wheel of fortune, memory game, crosswords, hangman's game, bingo, team tournament boards and so on.

Under each game there are three buttons: Demo, Istructions and Template.

- Clicking on 'Demo' starts the game demonstration, albeit in English.
- By clicking on "Istructions" you can download the instructions for the game (in English, but easily translatable).
- By activating 'Template' you download the Excel sheet containing the game. Now simply delete the question sentences written in English and enter your own customised ones. Be careful not to delete the first line of the sheet written in blue, which contains the column headings.

Once you have made all the changes, go to "File" then "Publish on the Web" then "Publish", which appears in a pop-up window, and finally press the OK button as confirmation. At this point we are done. We can close the window and go to the bottom of the screen where it says "Get link here" and here you can get the link to your application and it will be the same link that you can share with your pupils.

# FUNCTION DESCRIPTION

The screen below shows all types of quizzes/games available on Flippity. Each game has a demo version (which helps you understand the type of game and can be used for practice) and an Instructions option that gives you directions on how to customise the game you want to use.
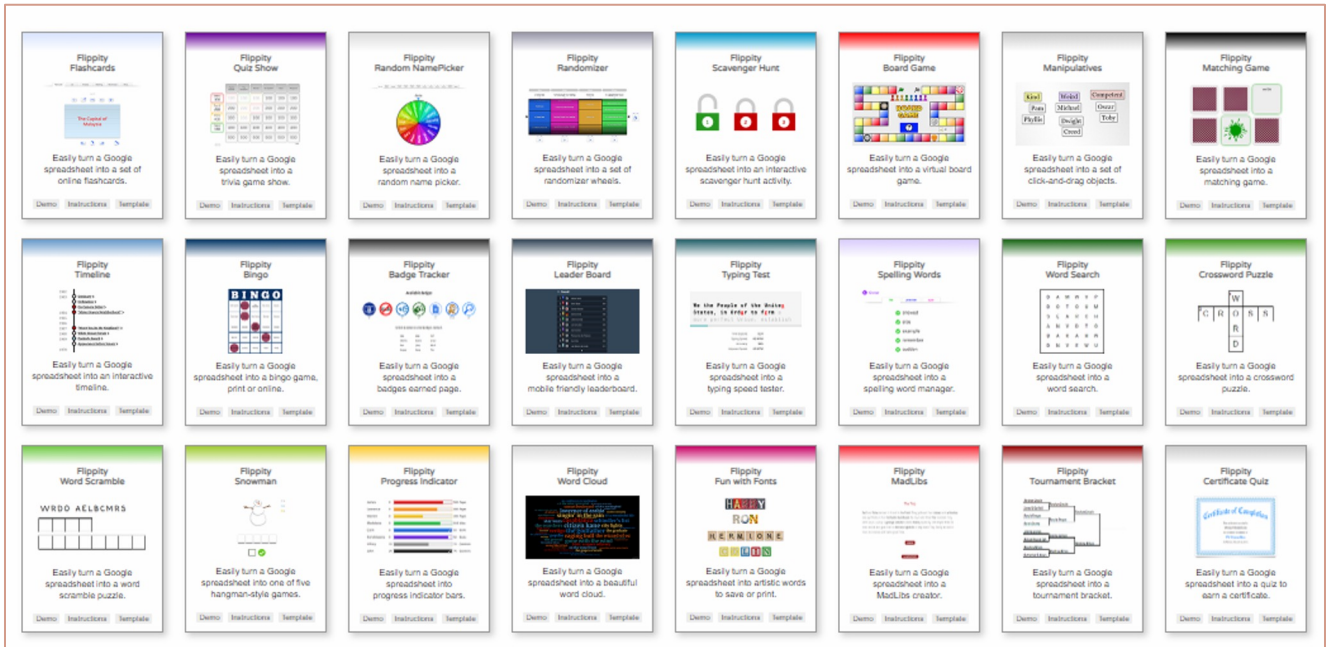


The following tutorial shows how to create a Matching Game using Flippity.net
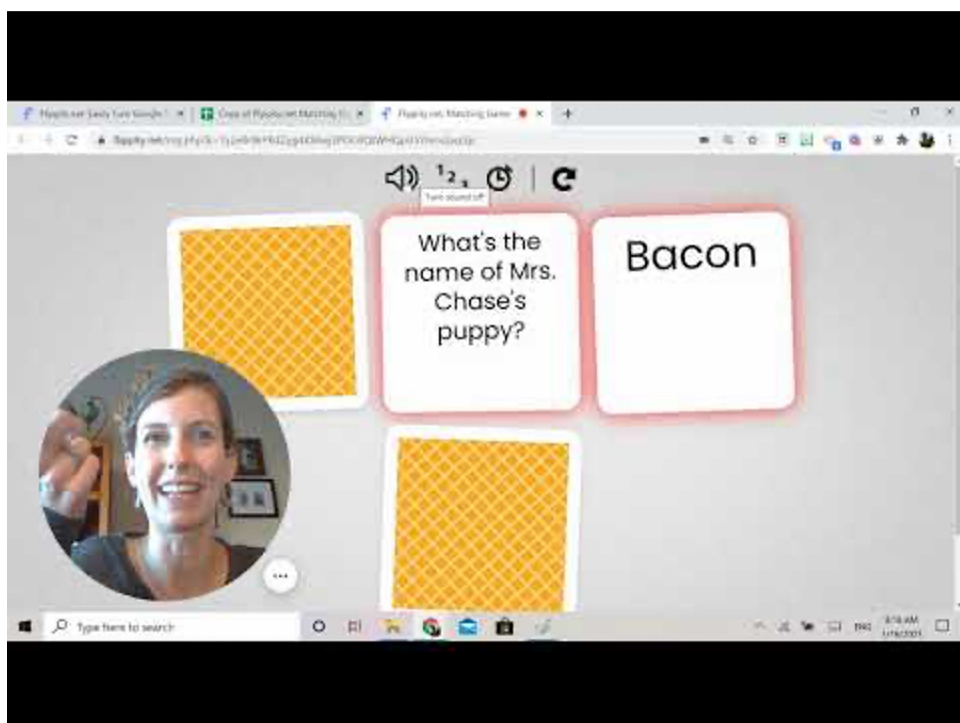
# FLIPPITY

## TIPS AND TRICKS

- Certain Flippity activities (Scavenger Hunt, Spelling Words, Certificate Quiz, and Typing Test) can be configured to automatically email results
- Practice shows the question with a text box for entering the answer. Type correctly, hit enter, and get a green check. Matching shows all the options in boxes so you can select two to match the question and the answer, and they will glow green and vanish.
- Different templates have different methods of incorporating images. Generally speaking, you need to provide the URL (web address) of an image that is already posted online somewhere
- For *Spelling Words* and *Typing Tests* you need to have an email address specified at the top of each column, even if it's the same address throughout.
- Save a local copy of the Flippity in most browsers by pressing Control + S. This should save all the necessary files so that the game, or whatever it is, will work on that device even after the internet connection has been lost.

# LEARNING OBJECTIVES
# &
# BENEFITS OF USING

- Engage students by stimulating their curiosity and desire to engage.

- Incentive structures to keep players engaged.

- As learners partake in various games, they develop self-awareness and self-control which are integral aspects of social-emotional learning

- In game-based learning activities, students expect to fail—it's a natural part of the game. The practice of failing, learning, and correcting gives students the opportunity to master the art of failure without negative consequences.

- Improve student's strategic Thinking & Problem Solving

# CLASSFLOW

## PRESENTATION SCHEDULE

ClassFlow app is available in all partners´ languages.

This tool enables co-working and lesson delivery anywhere in the world.

ClassFlow is completely free.

ClassFlow works on every device regardless the operating system.

No previous knowledge is required.

ClassFlow is easy to use therefore people with learning difficulties might use it as well.

# CLASSFLOW

## FUNCTION DESCRIPTION

ClassFlow is aimed at delivering engaging lessons and assessments. It is done thanks to the cloud-based delivery software. Because it is completely online, everyone has an access to it and your content can be reached on different devices.

ClassFlow is a very handy tool because it combines many functions teachers already know (polling tools, sharing screens, doing assignments, etc.) into one tool only. Thus teachers can have a presentation in ClassFlow and they can ask their students to vote or simply provide feedback on the topic in the lesson. This way teachers will immediately know if students understand the problem.

Students can work together on one assignment, or a teacher can work with them, too.

Students can work together in an easy-to-use environment and create for example catchy presentations for their classmates.

## FUNCTION DESCRIPTION



Here you can see examples of what purposes one can use the ClassFlow app for. You can choose from 10 different activity types, including crossword puzzles, word searches, memory games, flash cards, labelling and last but not least matching.

Teachers can divide activities for different classes in one tool and they also see the results and statistics of the student´s progress.



One example of practical usage of the app.

# CLASSFLOW

- With ClassFlow you can prepare students for tests, either your in-class tests or admission tests.

- ClassFlow is especially good when the classical type of teaching is not possible. Because this app provides users with more chances to interact with each other.

- You can use ClassFlow if you or some of your students will be absent. Through this app, everyone will be connected via one platform.

- Combine all functions in one class. Presentation, voting, etc.

# LEARNING OBJECTIVES
# &
# BENEFITS OF USING

- Teachers can see the progress of each student and help them to get better results.
- With ClassFlow you can create dynamic and catchy presentations that your students will like and will like to go through them at home again to prepare for the next class.
- Students and teachers do not have to switch between apps to use different tools. They can simply use ClassFlow.
- From the perspective of usage in teaching students with learning disorders, it is a suitable tool due to its intuitive and very user-friendly environment, which allows fully inclusive deployment.

# EDUCANDY

## PRESENTATION SCHEDULE

Available in English

A provided unique activity-code can be shared with students through email or whatever communication system they use. Activities/learning games can be "played" independently or in teams as well as on interactive whiteboards.

Standard features are free to use, but one can unlock to premium features

With the activity code students can access the game on the device of their choice. There's an Educandy mobile app as well, making it easier for students to access the games on either a mobile device, tablet, or computer.

No special knowledge required, very easy to use.

Learning Disorder
The tool can be useful to create contents friendly for students affected by Learning Disorders

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# EDUCANDY

## FUNCTION DESCRIPTION

Essentially, Educandy is an online tool students can use to master concepts and prepare for exams. It's geared a bit more towards younger students, making its prime target the elementary grades. Using the simple software, teachers can create review games in just a few short minutes. It's as easy as entering the questions and answers and the Educandy platform does the rest. In just a few quick steps, it can turn teacher-provided content into interactive activities for students to use in review games or independent studying.
Teachers can even embed those learning games on their school website page or their own personal online page for students and parents to easily find.

Each game provides the opportunity for simple but effective content review. It's also super easy for teachers to get started. All they need to do is create an account on the Educandy website and sign in with just a username and password. Then, they can start creating activities and review games right away. Whether students utilize iOS, Android, or Microsoft devices, they can access the Educandy mobile app as well. Whether on a mobile device or desktop, any user can enter their activity code right on the Educandy homepage. Then, students can begin to play educational games and interact with both digital content and their peers right away.

# FUNCTION DESCRIPTION



Screenshot landing page

Educandy play is the app where you can play the games on your device. Educandy studio is the app to create your own games.



Educandy Tutorial - Create Customized Educational Games:
https://www.youtube.com/watch?v=OD3q4lQaA-E&t=30s

# EDUCANDY

## TIPS AND TRICKS

- If you have vocabulary or basic facts that students need extra practice learning, consider using Educandy to create simple games for review.
- For language learning, it's a perfect way to practice new words. In social studies or science, you can have students review facts and/or match key figures with important events.

Sample activities:
https://www.educandy.com/site/html5/bin/main.php?activity=noughts&quizid=355327
https://www.educandy.com/site/html5/bin/main.php?activity=anagrams&quizid=232
https://www.educandy.com/site/html5/bin/main.php?activity=multiple&quizid=399112

# LEARNING OBJECTIVES
# &
# BENEFITS OF USING

- Educandy's games are entertaining to young students who need to practice basic facts or vocabulary.

- The platform is meant to just straightforward learning games for recalling basic facts.

- Entertaining and engaging format for elementary-age students; short activities to enliven the lessons.

- Very easy and fast to create games, if teachers have students who would benefit from the review of key facts and/or vocabulary.

- The tool supports mnemonic techniques, which works especially for students with learning problems or difficulties. Mnemonics as "an exercise by which students learn a significant amount of information in order to recall it from memory in the long term".

# LEARNINGAPPS.ORG

## PRESENTATION SCHEDULE

User interface available in 22 languages

To work individually or as a team to collaborate

Free

Usable on any operating system; Internet connection required

No specific previous Knowledge required, but basic Internet skills / some navigating skills

Learning Disorder
The tool can be useful to create contents friendly for students affected by Learning Disorders.

# LEARNINGAPPS.ORG

## FUNCTION DESCRIPTION

The platform allows teachers, but also students, to create and manage multimedia learning modules online and manage them online in an appealing form. In addition to common task types, such as matching exercises or crossword puzzles, the authoring tool offers around twenty further task formats, which are constantly being expanded by the developers.

White background, fresh colors, clear presentation, easy navigation, the choice of different languages and a large number of examples: the authoring tool and the LearningApps.org exchange platform are an invitation to enter the world of multimedia world of multimedia learning modules (apps). Such learning modules are small, modular teaching content that can be embedded like LEGO bricks in existing teaching scenarios.

The goal of LearningApps.org is to increasingly use audio and video content in addition to the media of text and images that are widely used in the classroom. There is a lot of high-quality multimedia content on the web today, but it is only being used tentatively in the classroom. Based on the YouTube principle, LearningApps.org allows learning modules to be published once they have been created and adapted by others to suit their own needs.
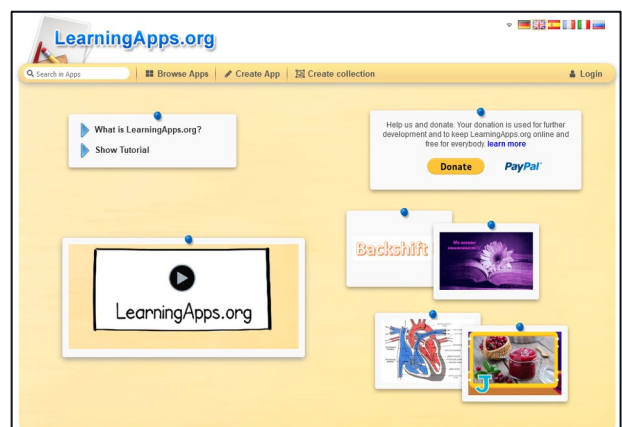


Image credits:
https://learningapps.org/

# FUNCTION DESCRIPTION

In addition to using existing apps for free, it is very easy to create your own apps. The tasks can contain multiple media formats, such as texts, images, videos and / or audio files. All apps can be opened and solved on a computer, tablet or smartphone, regardless of device or platform.

Creating the apps is simplified by pre-made templates for assignment exercises, multiple choice tests, etc. Students can also create their own apps (learning by teaching). Teachers can create classes and view the progress of students as they work.

You can search for specific apps via the menu item "Browse apps". The next step takes you to an overview of all existing categories (e.g., biology, German, music, etc.). At the top right, you can use a slider to select the type of school for which apps are to be displayed. If you click on a category, you will see a list of subtopics (e.g., mathematics -> fractions). If you choose a subcategory, all apps belonging to it will be displayed.
If you like the app, you can save it in your personal profile area by clicking on "remember" in "My apps" and easily find it again at any time. This function requires registration.

## Designing your own apps
The creation of a completely new app is done via the tab "Create app". To do this, select an appropriate task type (e.g., assignment task) from the ready-made templates and individualize the app according to your own ideas.
Free image databases on the Internet can be used for the most creative presentation possible. You can also insert your own multimedia files. The app is saved with a click on "Finish and preview", and another click on "Save". Each app is first saved as "private". Of course, it is also possible to make the app public - in compliance with copyright laws - and thus make it accessible to all users of the platform.

## TIPS AND TRICKS

**Examples of use in the classroom:**
- <u>History:</u> Assignment of events to the appropriate years
- <u>Chemistry:</u> Quiz with comprehension questions on a video embedded in the app
- <u>Geography:</u> Marking cities, rivers, etc. on a map
- <u>Native language:</u> Word search in a word grid
- <u>Foreign languages:</u> Assignment of the appropriate tense to photos
- <u>In frontal teaching:</u> Loosening up a short lecture etc. by solving the million game together or a group assignment with subsequent discussion. A beamer and a computer are required.
- <u>As homework:</u> Here, a "class" must be formed first. The "class" dictates which apps must be worked on and also provides statistics that allow the teacher to monitor completion.
- <u>Working on the apps in the computer room:</u> Students can work on the apps alone or in groups.
- <u>Use in class:</u> The students use the print version and scan the QR codes independently. The basis for this is, of course, the smartphone app for scanning. The students could simply download it at home. But beware: This type of use is not recommended if no WLAN can be activated for the students in the school building!

Selection of a few useful links:
https://www.youtube.com/watch?v=HoXIQ-keExs
https://www.youtube.com/watch?v=cfkXpnWnKj4
https://www.youtube.com/watch?v=OB2SbpQgyj0

# LEARNING OBJECTIVES
# &
# BENEFITS OF USING

- The easy operation creates incentives to increasingly use the multimedia potential of the Web in their own teaching, for the teacher and for the students as well.

- Creativity is unleashed and class content is more memorable and impactful.

- Students can develop lifelong skills creativity, collaboration, autonomy; helping each other with cooperative projects.

- Competitive tasks which learners can play in groups to compete with each other.

- As well as interacting with each other to do the activities, learners enjoy working with each other to create activities for their classmates to do (learning by teaching)

- Learning anytime and anywhere

# QUIZIZZ

## PRESENTATION SCHEDULE

User interface available in several languages

The instructor creates a quiz online and students participate via their end device, either via a code for the website or the previously downloaded app.

A free basic account (with a few limitations) and a paid account are offered.

Usable on any operating system; Internet connection required; mobile app available

No specific previous Knowledge required, but basic Internet skills / navigating skills

Learning Disorder
The tool can be useful to create contents friendly for students affected by Learning Disorders (e.g., read aloud function)

★ ★ ★ ★ ☆

# QUIZIZZ

## FUNCTION DESCRIPTION

Quizizz is a gamified learning platform, operating like a gameshow. The quizzes are structured similarly to Kahoot, but the biggest difference is that the questions are answered individually by the students on their device, allowing them to set their own learning pace.

As a teacher, you first create an account. This can be solved via a Google or Microsoft account or an email address.
There are many quizzes or lessons available. You can search for a specific topic first, maybe you will find a quiz which you can develop further. Once you have found a quiz that you like, you can assign the quiz to your library by clicking on "Copy and edit". By clicking on "Edit" you can then customize the quiz and add questions to it.

Several question forms are available such as *multiple choice*, *fill in the blank*, *draw*.

Sample *Multiple choice* (students view):
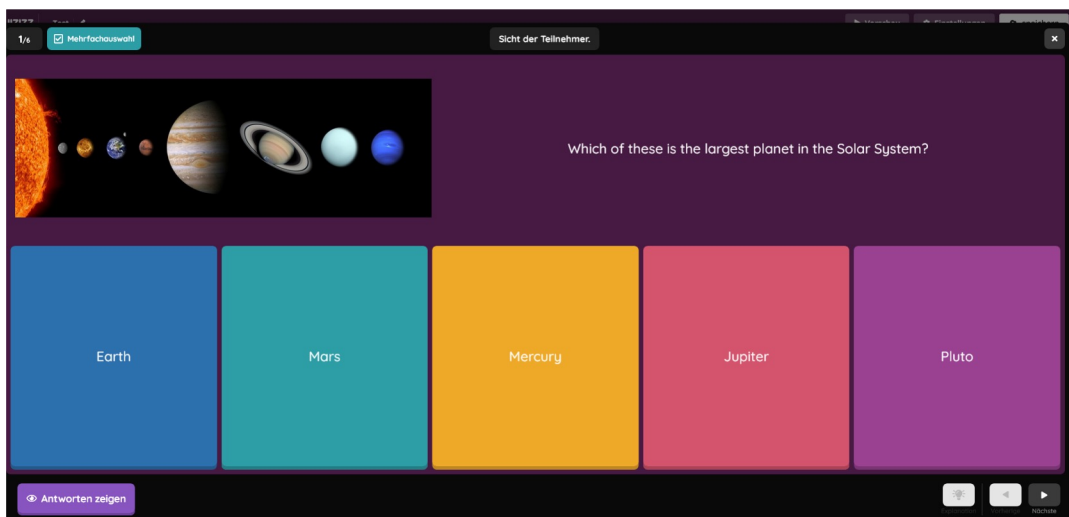
# FUNCTION DESCRIPTION

After you have customized your quiz, click "Save".
You now decide how you want to run your quiz, either as a live quiz or asynchronous learning (e.g., as homework).
Via "Start a live quiz" the students can join the quiz via https://quizizz.com/join and the code you have generated and solve it at their own pace.
A clear summary shows you as a teacher which students have solved the quiz and which questions are still causing problems for the students.
Various settings can be made via "Assign homework", after a link is generated which can be made available to the students.
Among other things, the link can be distributed directly in Microsoft Teams.
Besides the possibility to adopt pre-made quizzes, you can of course create your own quiz completely, which is just as easy.



https://www.youtube.com/watch?v=WVMi5esFkF4&t=84s



https://www.youtube.com/watch?v=7sP2jX9kHvY

# QUIZIZZ

## TIPS AND TRICKS

- Quizizz can be accessed via the browser or via the Quizizz apps, which are available via the Android or Apple store.

- The ability to take a quiz privately or as a class is a useful option. This allows teachers to assign individual quizzes suited to each student, or to work as a class, getting feedback on how the class is managing with a single subject across the group. The advantage of working in class is that everyone can see how their peers are doing. Equally, working solo can be ideal for those who prefer to be left alone, or for homework task setting.

- Quizizz offers a leaderboard, but this is something that teachers can choose to turn off if the competitive nature of that doesn't serve the students. The same can be said for question timers, which may help motivate some students but could be seen as unnecessary pressure for others – so being able to turn this on and off is a nice touch.

- Also editable are the meme feedback and music options. With these on, the quiz can feel like a lot of fun and be very lively, or you can turn these off for a more studious experience.

- One option allows students to see their results after they take the quiz, which is a helpful way to make sure they learn from any mistakes they may have made. They can also retake the quiz as a way to gamify it, seeing how many they can get right the second time around.

# LEARNING OBJECTIVES
# &
# BENEFITS OF USING

- Possibility that students also can solve questions independently and at their own pace.

- The teacher gets a direct overview of each student's performance.

- Usable for any school level and subject.

- Gamified approach and appearance is more varied, interesting and fun for both students and teachers and more engaging for students.

- Read aloud function can be helpful for students with learning difficulties.

# QUIZLET

User interface available in 19 languages

To work individually or as a team to collaborate

Free to sign-up to and start using (basic mode). For teachers, it's charged per year to get some extra features.

Usable on any operating system; Internet connection required; Quizlet app for mobile devices available

No specific previous Knowledge required, but basic Internet skills / some navigating skills

Learning Disorder
The tool can be useful to create contents friendly for students affected by Learning Disorders.

★ ★ ★ ☆ ☆

# QUIZLET

## FUNCTION DESCRIPTION

Quizlet is a web tool and a mobile app that boosts students learning through a number of study tools that include flashcards and game-based quizzes. As a teacher, you can create your own class on Quizlet and share study sets with your students. You can either design your study sets from scratch or search for pre-made sets to customize and use in your teaching.

To be able to make the best of Quizlet you need to open an account. You have different sign-up options to choose from. You can sign up using your Facebook, your Google account, or your custom email and password. Once you sign up, log in to start creating and sharing study sets.

You can easily create classes on Quizlet and add students to them. To create a class:
- Log in to your Quizlet account
- Click on Classes and select Create a class
- Type in a name for your class and a description
- Check whether you want to allow students to add study sets and new members (you probably do not need to enable this feature)
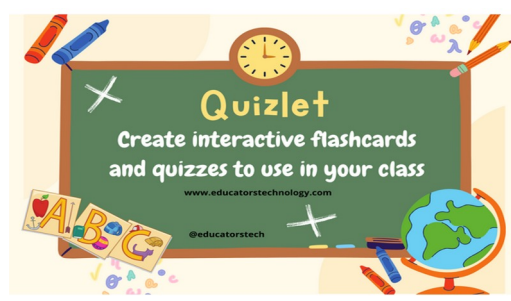- Select a school and click on Create a class.



Image and partly content credits:
https://www.educatorstechnology.com/2021/12/what-is-quizlet-and-how-to-use-it-to.html

# FUNCTION DESCRIPTION

Once your class is created, you can start sharing study sets with your students. You can either add an existing study set or create a new one. When you add study sets to your class you can choose whether you want to enable students to edit them or not by clicking on *Allow class to edit*.

**There are two types of study sets:** a list of terms paired with their matching definitions, and a set of questions with their corresponding answers. A study set can include the following elements: text, images, diagrams, and recorded audio. Diagram sets are interactive images that you create by adding terms and optional definitions. You can only add one diagram image per set. Also, diagrams are only available for premium subscribers.

**To create a study set**, login to your Quizlet account, and click on *Create*. Type in a title and a description then enter your terms-definition pairs. Often times, when you start typing your terms Quizlet provides suggestions based on study sets provided by other users. If the suggestion matches your term click on it to add it. The same with adding definitions. You can also add images to your study sets by clicking on the Image button at the right hand side. Quizlet provides suggestions for images to include or you can simply upload your own. There is also the possibility to  import  terms-definition pairs using Word, Excel, or Google Docs.

**You can search for pre-made study** sets that are publicly available in Quizlet library. Simply go to Quizlet homepage, select *Search* and type in your query and press *Enter*. Use filters (e.g., diagram sets, classes, textbooks, courses,  or users) to narrow down your search. When you find the study set you are interested in click on its title to make a copy to edit and share with your students.

# FUNCTION DESCRIPTION

Once your study set is ready you have access to different sharing options.

From within your Class click on *Members* from the top bar. Next, copy the generated link and share it with students. Anyone that clicks on that link can sign up and join your class automatically.
The second way students can join your class is by asking to join. To do that, students go to your (teacher) Quizlet profile, select the class they want to join and click on *Request to join this class*. You will get a notification when they do and you can grant them access to your class.

When you share study sets with students, they have 8 ways to work on them: five study modes and three activities/games.



https://www.youtube.com/watch?v=vt8BoEoZDKQ



https://www.youtube.com/watch?v=B4K2b042rns

# QUIZLET

- Quizlet has all those excellent modes that allow for a variety of ways to get information across for learning across a broad range of subjects.
- The smart adaptive nature of Quizlet is a really powerful feature. The Learn mode uses data from millions of anonymous sessions and then generates adaptive study plans designed to improve learning.
- Quizlet offers a lot of support for learners and students with learning differences. Select a word or definition, and it will be read aloud. Or, in the case of teacher accounts, attach your own audio recording. It's also possible to add visual learning aids to cards with specific images or custom diagrams.
- Quizlet has a huge amount of media that can be used, including a huge pool of licensed Flickr photos. Music can also be added, allowing for very targeted learning. Or teachers may find something ideal that has already been created and is available in the selection of shared online quizzes.
- Quizlet Live is superb as students are given codes and once they sign in they're randomly grouped for a game to start. For each question, a selection of possible answers appear on teammates' screens, but only one of them has the right answer. Students must work together to determine which is the correct one. At the end, a snapshot is provided for teachers to see how well the students have understood the material.

## Selection of useful links:

https://help.quizlet.com/hc/enus/https://www.youtube.com/watch?v=evOZq5inCaQ  (How to create Quizlet flashcards in 2 minutes)
https://www.youtube.com/channel/UCVNli1WMMljwc83Lqn-L9yg

## LEARNING OBJECTIVES
## &
## BENEFITS OF USING

- Helps teachers to differentiate review of their students and makes exam preparation easier.

- Multiple, custom question sets can be created.

- Question sets will help students prepare for tests and exams.

- Students can have fun with studying by using the game formats that Quizlet has to offer.

- Great for online and hybrid courses to make the material more engaging.

- For face-to-face classes, the live version allows students to collaborate and compete.

- Students can download the Quizlet app to study on the go.

# uMANAGER

## PRESENTATION SCHEDULE

This tool is available in English and Italian language.

Co-working mode is available in certain cases.

uManager is for free.

This tool is web-based.

No previous knowledge is necessary. Students only need their critical thinking.

People with learning difficulties might have trouble using this tool, however, they still can use it and enjoy the game.

# uMANAGER

## FUNCTION DESCRIPTION

uManager is a serious management game that aims to foster the development of entrepreneurial skills of students. The game offers users the opportunity to build and deal with the management of a touristic village, so in this game world, they are practicing their decision-making and problem-solving skills.

uManager is meant to be customized and to meet the specific needs of teachers and their classes. Students can play alone or in groups to compete in a common economic market. The teacher can design the tool activity, they can divide the class into groups, and define the details of the game. uManager is an effective teaching tool for activities like schoolwork alternation as it promotes immersive and experiential learning. Students have the opportunity to learn on the field as if they were in a real job because this tool reaches the right balance between the realism of a simulated system and the effectiveness of a learning path.
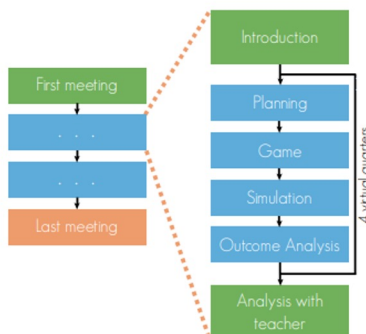
# FUNCTION DESCRIPTION



This is the link of the video
https://www.youtube.com/watch?v=fDXDkAxWloE



**An educational path example**

- Strategy and marketing segmentation
- Marketing policies and product positioning
- Business organization
- Food services and personnel management
- Corporate social responsibility
- Wellness and sports facilites

- First meeting
- . . .
- . . .
- Last meeting

- Introduction
- Planning
- Game
- Simulation
- Outcome Analysis
- Analysis with teacher

4 virtual quarters

# UiManager

uManager is a management game designed to promote the development of young students' entrepreneurial skills. The game offers young people the opportunity to deal with the management of a touristic village, stimulating decision making and problem solving skills in a reality-oriented environment.

## Who is the target

uManager is designed to be used in secondary schools. The learning model contained in the game allows students to obtain economic-financial principles, even if not present in their curricular activities.

## What the player can do

- Choose the market segment
- Define the marketing strategy
- Build the resort
- Define the employee policies
- Define the selling prices
- Read information about customers
- Get access to bank credit
- Analyse the performance of the resort
- Build knowledge through learning resources
- Answer questions to test the player's knowledge

## How to play

uManager provides a training that proceeds with increasing levels of difficulty, through the activation of game mechanics that allow an increasingly deeper management of the resort. The simulation divides each year in four quarters. At the end of each of theese quarters the player can analyse the outcomes trought a series of tools (e.g. graphs and financial recaps) and make decisions (e.g. choose a different advertisement channel to better reach his target market segment) to improve the overall quality of his resort.

## How to use the game in teaching

uManager is developed to be customized and to meet the specific needs of teachers and their classes.

The student can play alone or in groups (for example the class) to compete in a common market. The teacher can design the experimentation activity, subdividing the class into groups and defining in detail the game model.

uManager is an effective teaching tool for activities like the school-work alternation as it promotes immersive and experiential learning. It offers to students the opportunity to learn on the field as if they were in a real job environment, because the game reaches the right balance between the realism of a simulated system and the effectiveness of a learning path.

## TIPS AND TRICKS

- Especially students in hospitality industry schools will appreciate this tool because they will be able to try how real work works in the virtual world.
- Divide students into teams to also learn them how to cooperate.

# LEARNING OBJECTIVES
&
# BENEFITS OF USING

- uManager is meant to be used in secondary schools. The learning model contained in the game allows students to obtain economic-financial principles, even if not present in their curricular activities.

- Students will practice their critical thinking in real-life simulation so they will be prepared for real life.

# UNITY

Unity is available in many languages except for some project partners´ languages.

Users can create in teams.

This tool is for free.

This tool works on Macs as well as PCs.

It is desirable that students have basic skills in programming.

Users with learning difficulties might find it difficult to use this tool.

# UNITY

## FUNCTION DESCRIPTION

Unity is a multi-platform graphics engine that allows pupils to develop video games and other interactive content, such as architectural visualizations or real-time 3D animations. This app can be useful at technical schools so pupils can visualize for example parts of cars to better understand their function.

However, even if using this tool is not very difficult and also people with zero programming knowledge can use it, students should have a basic knowledge of programming. Therefore also teachers should know about programming, thus it is recommended to use this tool in ICT lessons.

Students can create either 2D or 3D simulations, even AR simulations and videos. They can also create games. The uManager tool that is also suggested in our project output is made in the Unity tool.

Unity gives users limitless options on what they can create with this tool. Also, professionals are using this tool to create videos, VR, AR simulations, etc.

# FUNCTION DESCRIPTION
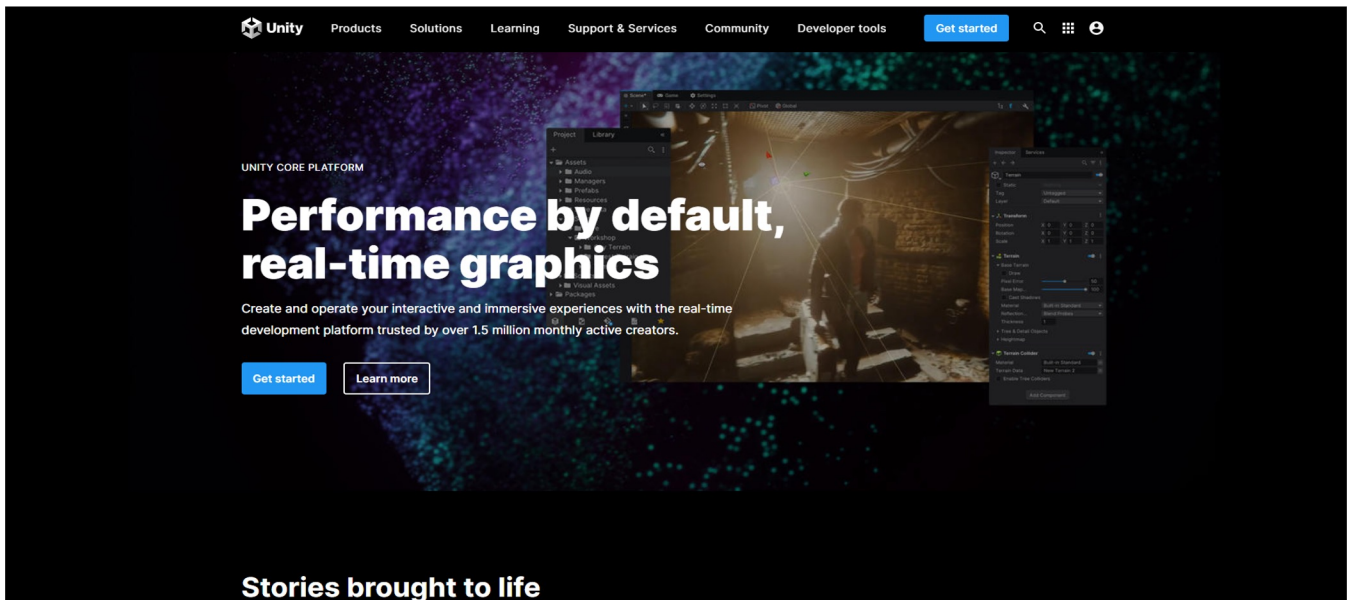


On the website, users can see what was already created using this tool. So it might motivate them in using this tool further and create their projects.

This tool can be used in architecture, automotive, or many other fields. Students can create 3D models of their projects.

There is a special site where beginners can watch courses on how to use it.

# UNITY

## TIPS AND TRICKS

- Use this tool in ICT lessons and start slowly to teach your students to use programming tools. It might be useful to use another suggested tool in this project that is aimed at the beginning of programming. This tool is the MIT app and once students will understand this app, they can move to use this advanced one.

- Maybe you can show your students what they can actually create to inspire them in their projects. Results from this tool are also used nowadays in pop culture, so maybe your students will want to create a video for a band of their friends.

- Ask your students to make 3D models of something they know or might use in school.

- Even if you are a teacher of ICT and you are struggling with this tool, there are many videos on how to use this tool. You can also share it with your students.

# LEARNING OBJECTIVES & BENEFITS OF USING

- Students will learn how to create videos, VR/AR simulations, or even games.
- They can cooperate. If they will learn how to cooperate they might find it helpful in their future lives.
- This might be for many students a step up in programming and video making because it might be their first contact with "real" programming.

# EDUCAPLAY

## PRESENTATION SCHEDULE

Educaplay is only available in English, French and Spanish

You can share your creations with other people and users but you can not work in them with other people in real time.

Educaplay is free to use without limits in the creation of activities. There are premium versions from 4 to 39 euros per month that add extra features, such as integration with platforms and LMS's and ads removal.

It can be used in any computer with an internet connection and a compatible browser, regardless the operating system

It doesn't require previous knowledge.

Due to the different activities you can create and with all the possibilities that gamification has, Educaweb has a huge potential to be used with students with learning disorders.

# EDUCAPLAY

## FUNCTION DESCRIPTION

Educaplay is a website in where you can find a toolbox for creating gamefied activities to use in the classroom with the students. It also offers a search engine with which you can find activities created by other user and use them with your students.

There are 17 different types of activities that any user can create from scratch, such as memory games, crossword puzzles, fill in the blank games or gamefied dialogues.

Its main features are:

- It is not needed to install any program.

- There are no limitations in the number of activities a user can create.

- Big database and search engine of over 4 million already created activities that can be used without limitations.

- Each type of activity has a lot of possibilities of customization

- The application guides you, step by step, in the creation of the activities.

On the counterpart, main limitations are:

- The free account will include ads in the activities created.

- Although the website is in three languages and the activities can be created in several other languages, when you create an activity you have to educationally classify it but the only chances correspond to the spanish educational system.

# FUNCTION DESCRIPTION



Types of activities
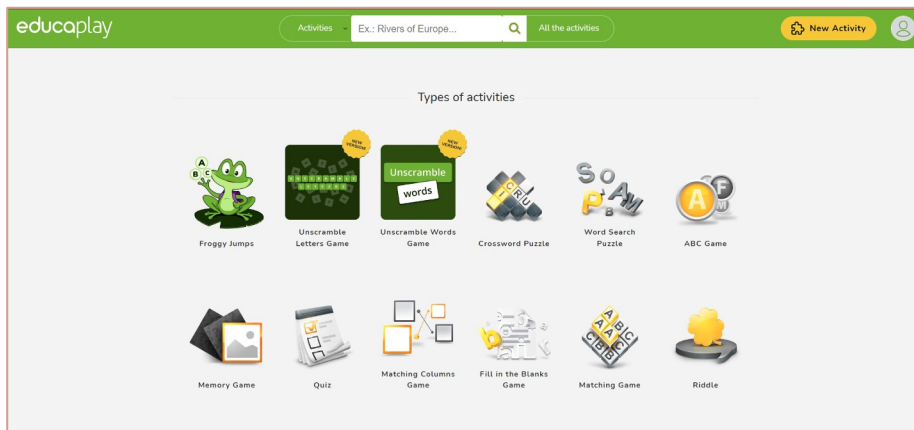
At https://educaplay.com/support-center/ you can find a variety of videotutorials that will help you to start using educaplay functionalities. In the following links you may find some of the most relevant ones:

- How to sign up in Educaplay: https://www.educaplay.com/support-center/video/DRsA7cwsg0U.html
- Educaplay in 2 minutes: https://www.educaplay.com/support-center/video/U44iAuJkSt0.html
- How to duplicate activities from other user: https://www.educaplay.com/support-center/video/seexqBuhWMU.html
- How to create your own unscramble words: https://www.educaplay.com/support-center/video/TSvlQe9iFmk.html
- How to create your own Froggy jumps: https://www.educaplay.com/support-center/video/EtBkGmY54_I.html
- How to create your own "Fill in the blanks" game: https://www.educaplay.com/support-center/video/khUA9hNlCPk.html
- How to create a video quiz: https://www.educaplay.com/support-center/video/UcMN5SbyxLY.html
- How to create a matching game: https://www.educaplay.com/support-center/video/33DnNfelCdM.html
- How to create a memory game: https://www.educaplay.com/support-center/video/K-ng5sZUE78.html
- How to create a word search puzzle: https://www.educaplay.com/support-center/video/_2JZQy3H0Tc.html
- How to create a quiz: https://www.educaplay.com/support-center/video/gQzZUKP4DX8.html
- Create challenges to share activities: https://www.educaplay.com/support-center/video/bTttUuDe_xM.html
- How to insert activities in Moodle:
    - Option 1: https://www.educaplay.com/support-center/video/FvGw2uXGk-c.html
    - Option 2: https://www.educaplay.com/support-center/video/DvDB0AFkqpA.html
- How to insert activities in Google Classroom: https://www.educaplay.com/support-center/video/9x0VUtAjDO8.html

Source: https://www.educaplay.com/

# EDUCAPLAY

## TIPS AND TRICKS

- Try to create games to keep your students engaged, not to entertain them.
- Always have clear in your mind which is the learning goal you want to achieve with each activity and design the activity according to that goal.
- Your classroom activities will be more attractive to your students if you enrich them with references to the region, the school, to yourself...
- Prepare the best possible instruction. Something that is common sense to you just because you created the game and have it in your mind, may not be for your students, so that's why each game has to be perfectly explained to be played successfully.
- Don't make difficult games. Better too easy than too hard. If the game you create is too hard, it will not progress at all and will generate frustration in your students. On the other hand, if you do it too easy, your students may lose interest in the game, but you can always encourage them to do it faster or without mistakes.
- Always test the activities you create before using them with your students.
- Give a prize to those who win the games you use in the classroom. It can be just a virtual badge or an ovation from their classmates, but that will make them feel special and will add some extra motivation for the next game.
- Try not to grade your students according to the results of the game or they will perceive your game more as an exam than as a game.
- Make your students to join forces to complete a game. This will rise up their attention.
- Always finish wrapping up after the game. Ask your students for feedback and also tell them your impressions. Explain them what your expectations were and how these were overpassed or not. And in this case, give them the chance to correct what they did wrong.
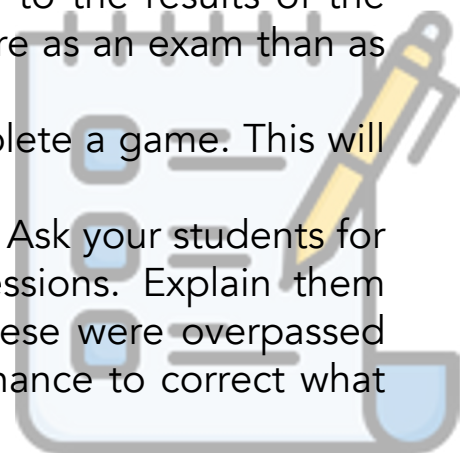
# LEARNING OBJECTIVES
# &
# BENEFITS OF USING

- Learners pay more attention to explanations and depending on the game, a bit of healthy competition increase engagement.

- Through the games, teachers will be able to reinforce concepts that have been taught before.

- Increase creativity and team working abilities in the learners.

- For learners with some learning difficulties, games will reduce frustration making them feel the task is more manageable.

- Teachers will be able to gather important information about their students just walking around the room, listening and observing. Otherwise, this information would be very difficult to obtain.

- Allow teachers to work with small groups giving them the chance to work with a small group while another small group is busy with one of the activities.

# OPENPLC

## PRESENTATION SCHEDULE

Open PLC Editor software is available in a great variety of languages. However the website Forum and Documentation is available only in English.

It is not prepared for online co-working in the same project, but the website Forum works as the user's site to share projects and ideas.

Open PLC is an open source and therefore free software.

It works in Windows and Linux.

Some previous knowledge in programming languages is necessary to use this software.

The programming environment is simple and easy-to-use, so students with learning disabilities can learn programming devices.

# OPENPLC

## FUNCTION DESCRIPTION

OpenPLC is an open-source Programmable Logic Controller that is based on an easy to use software. It is the first fully functional standardized open source PLC, both in software and in hardware.

OpenPLC is mainly used on industrial and home automation, internet of things and SCADA research, so it is a very good option for students beginning with device programming and it can be used in a wide range of applications.

Its main features are:

- The OpenPLC Project consists of two parts: Runtime and Editor.

- The Runtime is a portable software designed to run from the smallest of all microcontrollers (Arduino-compatible) to powerful servers in the cloud. It is responsible for executing the PLC programs you create using the Editor.

- The OpenPLC Editor is the software that runs on your computer and, as mentioned, is used to create your PLC programs.

- It is very simple to use and supports all five languages defined in the IEC 61131-3 standard: Ladder Logic (LD), Function Block Diagram (FBD), Instruction List (IL), Structured Text (ST), and Sequential Function Chart (SFC).
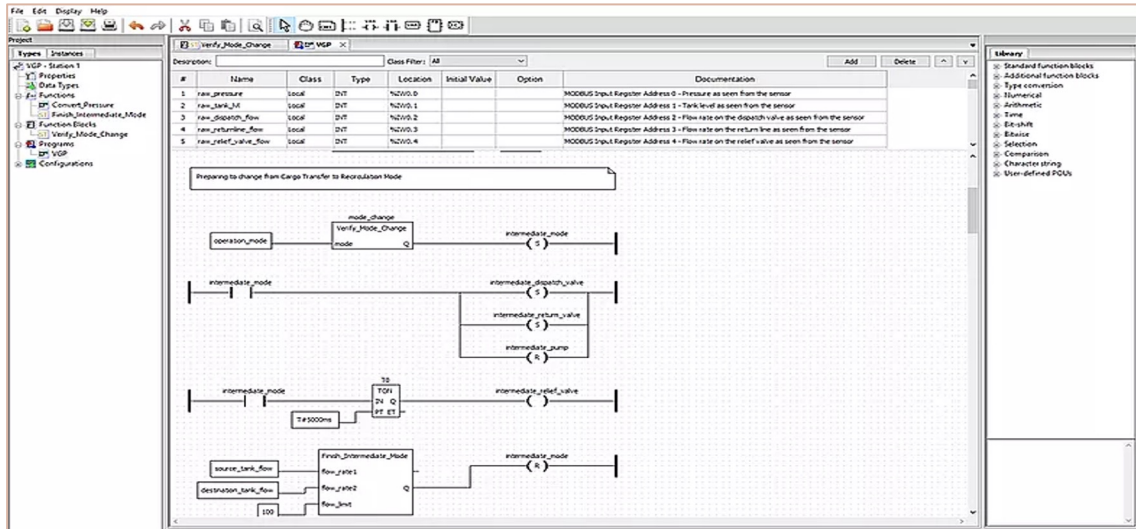
On the counterpart, main limitations are:

- It is not compatible with the main industrial PLCs.

- Previous knowledge in electronics and programming is necessary for the teachers.

- The software is completely free, but to develop a complete application the users might need to buy some hardware.

# FUNCTION DESCRIPTION



OpenPLC is an open-source Programmable Logic Controller that is based on an easy to use software. It is the first fully functional standardized open source PLC, both in software and in hardware. The OpenPLC project was created in accordance with the IEC 61131-3 standard, which defines the basic software architecture and programming languages for PLCs.
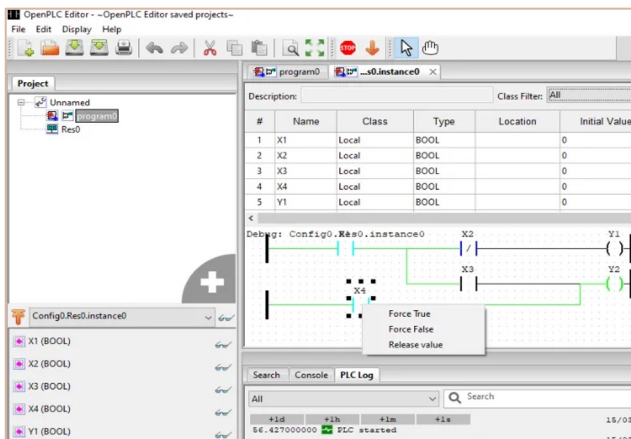


OpenPLC is mainly used on industrial and home automation, internet of things and SCADA research.
It also includes some interesting features such as LADDER programming

You can check OpenPLC in action on the short video below:
https://openplcproject.com/wp-content/uploads/2022/05/OpenPLC-Intro.mp4?_=1
On the link below you can also find a brief tutorial where you will learn:
VIDEO: https://www.youtube.com/watch?v=bSdW4XXBlLo

Sources: https://www.youtube.com/c/seafoxc/videos /
https://openplcproject.com/

# OPENPLC

## TIPS AND TRICKS

- Start with a simple application.
- Plan your program in advance before starting the coding process.
- Create all the variables you need before writing the program.
- Use recognizable but short names for the variables you create.
- Use different functions and function blocks to organize your program.
- Select the right programming language for each program:
    - Use Ladder or FBD language specially to work with single bit signals.
    - Use Structured Text language when you need to operate with numbers or texts.
    - Use SFC language to program sequential tasks.
- Makes notes and comments in every section of your program.
- Simulate your program in OpenPLC Editor before downloading it to the final device.

# LEARNING OBJECTIVES
# &
# BENEFITS OF USING

- Coding can help students improve their logical thinking skills by allowing them to see problems from a new perspective.

- Solving a programming problem could become a very hard work, so perseverance is also developed when the students work in their programming projects.

- Programming requires very good order by the students, so organization skill is also enhanced in the process.

- Technological knowledge is everyday becoming more important in our society and working with programmable controllers and connecting them with other devices is a great way to transfer this kind of knowledge to the students.

# DIGITOOLKIT