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Module 2: Suitable digital tools and software for maintaining effective online interaction

T4T - Tools4Teaching in Digital Education Settings

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About the project

T4T - Tools4Teaching in Digital Education Settings project focuses on supporting adult educators and formal, non-formal and informal training providers to effectively shift towards digital education and to provide the same level of learners' interaction and 'human-like' experience, as in the physical environment. The overall project objective is to strengthen the capacity of adult educators and training professionals to build and sustain effective group dynamics in digital education settings, so as to better engage their online learners.

Development of Guidelines how to better set up effective group dynamics in an online learning environment will help adult educators and training professionals improve their competences about the specifics of building and sustaining effective online group dynamics and ensuring a high level of learners' experience in digital classrooms.

The 6 modules provide general methodological guidelines to adult educators how to be more effective in building and sustaining group dynamics in online learning environment:

- what digital tools and software can use
- what behaviour to adopt
- how to engage learners in small group online activities
- how to use artistic exercises to boost creativity, etc.

Module objectives

The goal of this module is to make the best use of some of the tools available for conducting online classes. These are the different types of tools we have chosen:

- ❖ Collaboration communicative tools
- ❖ Engagement tools
- ❖ Assessment tools

Learning objectives

- ❖ to be able to set up an online lesson using digital tools: sharing a whiteboard, documents, files, creating assignments, etc.;



- ❖ to create games to reinforce learning while making it more fun;
- ❖ to develop assessment activities using digital tools that facilitate the creation of online lessons.

Pre-requisites

- ❖ Have access to a computer, laptop, or tablet with Internet access.
- ❖ Know how to install software and apps on the above devices as well as on a smartphone.
- ❖ Be familiar with the basic use of all of these devices.
- ❖ Know how to use a webcam and microphone.
- ❖ Be familiar with the use of the Internet.
- ❖ Be willing to learn new teaching methods, approaches, and tools.

Expected learning outcomes (skills and competences)

At the end of the module the educators will:

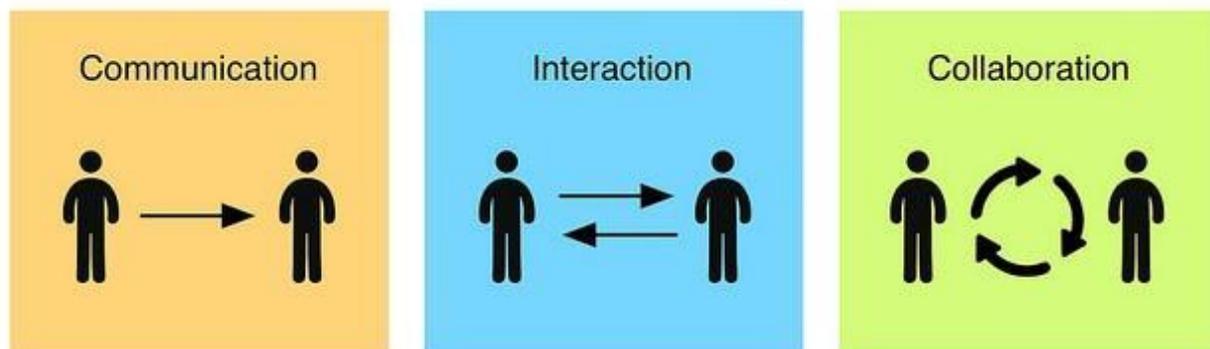
- ❖ Become familiar with various digital tools to make your distance/mixed learning classes more effective and interactive;
- ❖ Be able to search for unlisted apps and software that best meet the needs of your students and you;
- ❖ Combine different tools to get the most out of your online/blended classes;
- ❖ Engage your students and make the classroom more enjoyable by using different digital tools;
- ❖ Assess your students in a digital learning environment.

Topic 1: Collaborative Communication Tools

When researching on the Internet, you usually come across a variety of digital tools that share common characteristics. For example, there are some that encourage collaboration between all participants, others promote creativity, and still others are used for evaluation. What is certain is that everything in life is learned by doing, and teaching and the use of digital tools are no exception to this rule. According to Brindley, Walti, and Blaschke (2009), online learning should provide:

an opportunity for interaction and connectedness. Quality learning environments include opportunities for students to engage in interactive and collaborative activities with their peers; such environments have been shown to contribute to better learning outcomes, including development of higher order thinking skills.¹

Collaboration has become more important for innovation every day. Using tools that allow teachers to communicate effectively and develop a kind of collective intelligence guarantees better results.



It should be remembered that in a virtual class, teachers are no longer the protagonists of learning: now it is the students and they must be motivated to communicate. They may not feel comfortable talking to you, but they dare to talk to their classmates, and this is the importance of fostering collaboration. It's important that learners do not feel alone in a virtual course, on a platform they do not know, and that they feel you, as a tutor or virtual instructor, are there to support them. Loneliness is one of the reasons why students may drop out of a virtual course.

Nevertheless, learners in virtual classes are often less willing to speak, and if this is not taken into account, their progress can be affected. Learners need to speak and receive correction to stay motivated, build

¹https://www.researchgate.net/publication/26627896_Creating_Effective_Collaborative_Learning_Groups_in_an_Online_Environment

their confidence, and improve their fluency and accuracy. Below are some strategies we can use to get learners to speak more in online courses:

Use of Breakout Rooms. This feature allows you to divide students into smaller groups. You can then move between groups, observe, listen, give feedback, etc. There are several ways to use breakout rooms successfully. For example:

- **Communicative Activities:** Talking in smaller groups often makes students feel more comfortable. They are less afraid to make mistakes and have more opportunities to talk. The teacher can move between rooms and make immediate corrections, which can be more individualised than whole-group assignments. Another option is to take notes and then gather students in the main room for a feedback session.
- **Pairwise comparison of responses:** As in the real classroom, you can ask students to discuss their answers together before sharing them with the group. This should give them more confidence when giving their answers in front of the whole class.
- **Team games:** Students can discuss the answers to quizzes, riddles, etc. with their classmates before giving their answers. This competitive element increases motivation and adds variety.
- **Mini-Tutorials:** If you want to talk to a student about their attendance, progress, test scores, etc., you can suggest a mini-tutorial in a small group room. This is more personal than an email and allows the student to speak more freely.

Use recordings. It may sound controversial to think that students do not like to speak online, but if you make recordings, you can take time to plan what you want to say and record it several times if needed. Shy or less participative students have a chance to make their mark. The assignment can be freer or more controlled, depending on the objective. The teacher can set strict time and content limits or let the students decide. The teacher can listen to the recordings during or after the lesson and make detailed corrections. Students can listen to each other's recordings, make corrections, share ideas and responses, etc. The recordings are easy to share, edit, and review. For example, you could ask students to record themselves describing a dilemma. They then send this recording to a classmate, who records a response with a suggested solution.

Below you can find some examples of collaborative communication tools:

- **Google classroom:** (free or subscription plan) It is a virtual learning environment (VLEE) that can be found in Google Workspace for Education. It offers a space in the cloud to be in touch with your students, assign different tasks, share materials, ask questions and work in a collaborative way.



One advantage of Google classroom is that while it doesn't directly provide content, its integration with the Google sphere makes it easy to create links to the lectures, worksheets, and videos you need for an engaging and successful lesson. Students also learn the interface quickly, as it already resembles the Google world with which they're undoubtedly familiar. A similar tool is Microsoft Teams.

Tutorial: <https://www.youtube.com/watch?v=pl-tBjAM9g4>

- **Easyclass:** (free) it is a platform that allows teachers and educators to create interactive online classes where course materials can be stored and assignments can be easily managed. Easyclass allows educators to administer tests and exams, as well as monitor due dates and grades - all in one place. The Integrated Gradebook feature works by adding a column whenever an assignment or quiz is posted to the digital class. Students' grades are then automatically entered into the gradebook when the instructor grades a particular assignment or quiz. The MyFiles section is like a virtual library that users can access and update anytime, anywhere. It allows teachers to organize, store, share and manage all their documents directly in their accounts. All content created within the platform for online classes can only be viewed by the members of the class.

Tutorial: <https://www.youtube.com/watch?v=F9HTUrrq93o>

Topic 2: Engagement tools

It's hard enough to captivate students in the classroom, but luckily it turns out that the tricks you use there also work online. And surprisingly, it's not that difficult to incorporate proven work practises to get students to learn.

Being present for students can be really difficult with online and hybrid teaching. And yet, that's ultimately what opens the door to most other opportunities to increase student engagement. If you create an environment where you are available, understanding, and helpful, your students will be more open and motivated to communicate. Being open will also help students retain knowledge from class. Building a connection with your students will increase their engagement in online learning. One way to be more present could be to create a personalised video. An example of a good tool for this purpose could be TedEd:



- **TEDEd:** (free) Choose a video, add a description, add a quiz, and prompt some discussion. There is also a web app that allows users to create actionable video lessons. The lesson format consists of a lesson title, a written introduction ("Let's Begin"), a series of multiple-choice or open-ended questions ("Think"), a place for additional resources to encourage further investigation ("Dig Deeper"), an interactive class discussion ("Discuss"), and a conclusion ("And Finally"). Once you've "published" the lesson, you can share the link with whomever and however you like. The lesson remains private. On the platform, you can easily search videos by topic or enter a URL of any YouTube video you find. Alternatively, you can use one of the TED -Ed originals as is and have your students participate in public discussions or modify the lesson for class objectives.

As the lesson creator, you'll be notified when your students complete the lesson and can view a summary of the results and comment on their individual responses. Individual student responses - including open-ended responses - can also be downloaded as a CSV file and imported into Excel.

With the obvious caveat that you must've found an appropriate video, this is a tool that can be easily adapted for the purposes of pre-assessment, formative assessment, or summative assessment by changing the types of questions you ask. For example, you can use the video as a prompt for a topic you're just beginning to cover and ask students to tell you what they know beyond the content of the video. You can use the video in the middle of a lesson to measure

progress toward learning objectives. Or, you can use it at the end of a lesson to ask students to apply what they learned to the context presented in the video.²

Tutorial: <https://www.youtube.com/watch?v=1fL9YIxMB88>



Another easy way to create your own teaching resources based on the content you want to teach and adapted to the reality of your students is the Wordwall tool:

- **Wordwall:** (free) This tool allows teachers not only to create interactive games but also printed materials. The teacher only needs to enter the content they want to use with their learners and Wordwall automates the rest. It can be used to create interactive and printable activities. Most templates are available in interactive and printable versions. Interactive activities can be played on any device with a web browser, such as a computer, tablet, phone, or interactive whiteboard. Students can play individually or with teacher guidance, taking turns at the front of the class. The printables can be printed directly or downloaded as a PDF file. They can be used as companion activities to an interactive game or as stand-alone activities.

Tutorial: <https://www.youtube.com/watch?v=7cLIANVFezk>

- To simply make the lessons more interactive and fun, there is the **Nearpod** platform (free and subscription). They themselves explain four ways they support academic engagement³:
 - **Rich media in interactive teaching.** While online classes do not allow you to visit museums or do in-person exercises, virtual classes do not have to be without hands-on experiences. With Nearpod, you can move from passive to active learning by incorporating virtual

² <https://blogs.umass.edu/onlinetools/assessment-centered-tools/teded/>

³ <https://nearpod.com/blog/distance-learning-guide-four-ways-to-increase-engagement-and-participation/>



reality (VR), interactive video, and simulations to make connections and stimulate exploration, while embedding questions that stimulate critical thinking and creativity.

- o Commitment to formative assessments. Checking for understanding during class not only promotes student engagement, but also gives teachers real-time insights into student learning. When classes don't meet in one place, it's even more important for students to be able to show what they know and for teachers to get a sense of what their students have learned. Formative assessment is a hallmark of Nearpod. You can choose from a variety of question types that give students multiple opportunities to demonstrate their learning (and have fun doing it!) Examples include: Survey, "Time to Climb," "Draw" quiz, and more. These activities will be engaging for your students and provide you with reliable data about their skill level. Add Nearpod's assessment features at any point in your lesson or video to check for understanding, and hear from each student for each activity!
- o Promoting class community. Class community remains an important element in fostering student engagement and participation, even if that community must be virtual. Classroom routines and rituals have become even more important to many educators as teachers and students adapt to virtual classes. With Nearpod, you can foster and maintain classroom community, even remotely. Nearpod offers three ways to do this: Gamification, Collaborate Boards, and Flocabulary (hip-hop videos that reflect student interest and identity during class).
- o Video interaction. Video instruction is a powerful tool for educators, especially in distance learning. However, videos can be passive in themselves; students just sit and watch rather than interact with the information. In a physical classroom, you would likely pause and ask questions at key moments in the video. With Nearpod, you can set these comprehension checks in advance, even during asynchronous lessons, and each student has the opportunity to respond on their device. You can upload a video of yourself, find the perfect video on YouTube, or check out our library of over 1,000 videos with questions already embedded! Nearpod is integrated with Flipgrid. Flipgrid is a type of discussion forum that uses videos instead of text. You can use it for book reports, reflections, teacher-student conferences, and class discussions.

Tutorial: <https://youtu.be/NlgSFEb4H9Q>

Topic 3: Assessment tools

Educational assessment is a continuous and personalised process to determine the development of each student in order to provide reinforcement or compensatory measures when necessary. The purpose is to ensure that the educational objectives established for each level are achieved. It is therefore a very useful tool for making educational decisions to improve a student's performance.

According to education experts, assessment is useful for both teachers and students:

- For teachers, because they have the opportunity to communicate learning goals and expectations to students, and because they can check the effectiveness of the teaching methods used.
- For learners, assessment can serve as a positive motivator to gain recognition for their efforts through grades, and it forces them to review previous learning topics, reinforce what they have learned, and clarify ideas.

It's important to let students know from the beginning that you will be assessing. Make sure that the learning fostered by the assessment activity is situated and transferable learning, that is, that it makes a connection between academic and real life, that it makes a connection between the classroom and the community. In this way, you are likely to set motivating tasks that are closer to your students, pique their interest, and are easier to follow through on.

Of course, do not forget the educational level at which you are working!

And once we have decided what we are going to assess and shared that with the students, we need to make our presentations, whether oral, text, or audiovisual, as neat and clear as possible. And we will not only inform them, but also listen to them, give them the opportunity to ask questions or make

suggestions, and make agreements about the proposed assessment activities. However, it is important to remember that we cannot respond to their messages all day long, so we need to manage the students' expectations by setting rules for how and when interaction with the teacher should take place.





- **Socrative:** (free and subscription) With this tool students will be engaged from the very beginning since you can create any type of activity, whatever your needs are. You can choose from quizzes to polls going through exit tickets. Some of the activities available in the app are: 'Quiz', 'Space Race' (quiz with countdown) or 'Exit Ticket' (quiz with ranked results). The type of answers can also be chosen between 'Multiple Choice', 'True or False' and 'Short Answer'. In all three cases, the teacher can see the student's answers live and check them at the end of the test in a report stored in the application itself. This way you can see the academic progress of each student, but also the questions with wrong answers in the whole class, so you can review the content again if you think it's appropriate.

Tutorial: <https://www.youtube.com/watch?v=VyycybD8KNw>

- **Quizalize:** Quizalize is an online application that allows teachers to access and instantly create their own didactic assessments so their students can practice any topic on any device for free. It is a dynamic platform with more than 80,000 ready-to-use tests created by more than 100,000 teachers from over 110 countries. Students can take the test on any device - computer, tablet, or smartphone - using a browser, with no software or apps to download; making it a great option for BOYD learning environments. The game can be played simultaneously in class or as homework, depending on the teacher's preference. Using Quizalize in class allows teachers to see in real time which students need help with which assignments.

Tutorial: <https://www.youtube.com/watch?v=wfZOuQxZhUo>

- **Peergrade:** Classtime is a solution for classrooms that complements in-class teaching with immediate feedback on students' level of understanding. It is a good tool for preparing students for challenging tests. It provides teachers with easy-to-use tools to create a variety of question types, such as multiple correct answers, highlightable text, table questions, hot-spot questions, etc. In distance learning, it is a great tool for delivering online lessons with direct instruction. For example, you can present the beginning of the lesson with a Google Slides deck and then send it to Classtime where you can immediately check for understanding. As students answer questions, you can see their answers in real time. You can also send private messages to any student through Classtime chat. Many teachers find it difficult to hold their students accountable via the computer, but with Classtime you can instantly check who is participating in class. Classtime is one of the few websites that combine testing with engagement with its animations and puzzles.

Tutorial: <https://youtu.be/gGNE8YX9IsI>

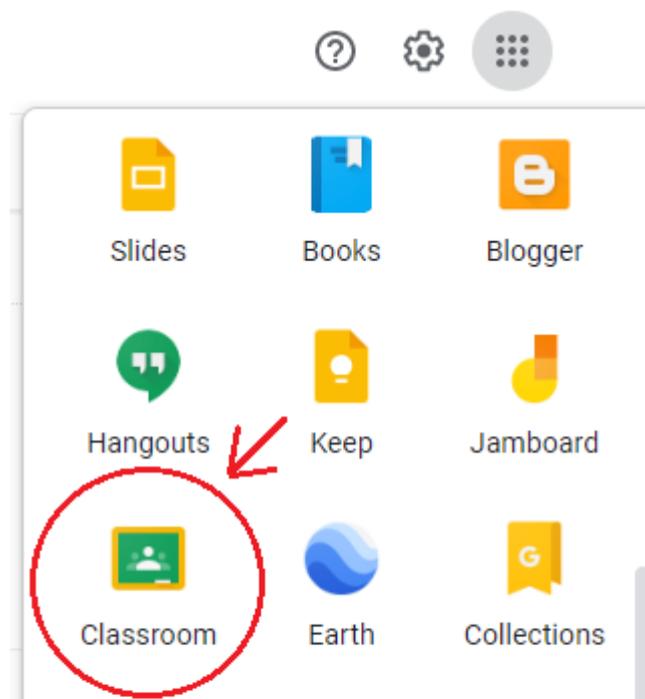
PRACTICAL ACTIVITY: Create a lesson using Wordwall and upload it to Google Classroom

Students are going to create an activity using Wordwall, that will be later uploaded to their Google Classroom following the next steps:

1. Create a Gmail account (<https://accounts.google.com/signup/>) and another one in

Wordwall (<https://wordwall.net/account/basicsignup>).

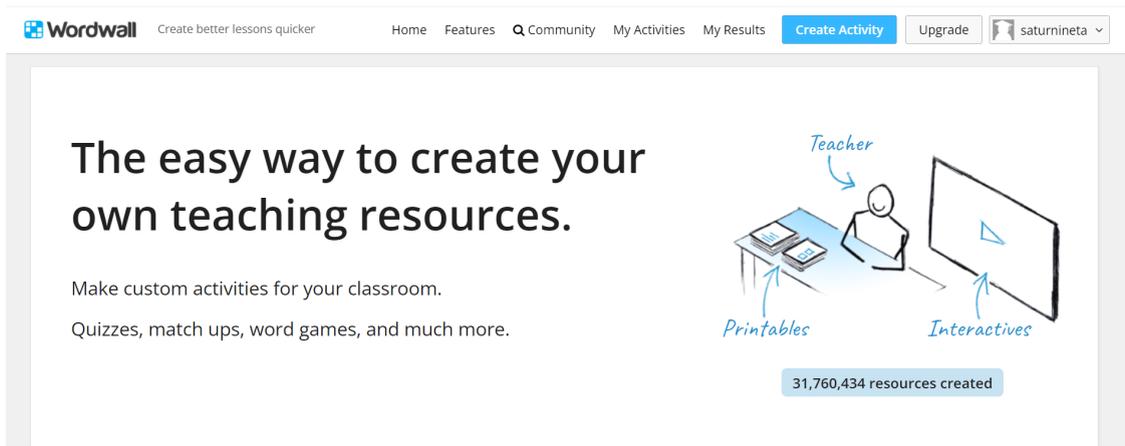
2. Open Google Classroom (top right on the Gmail page):



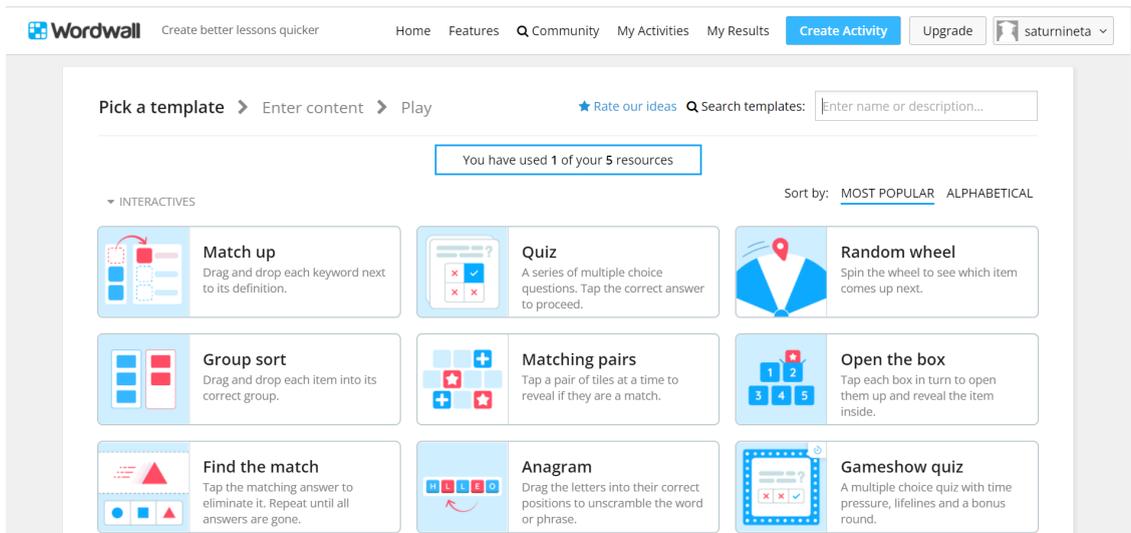
3. Create a class.



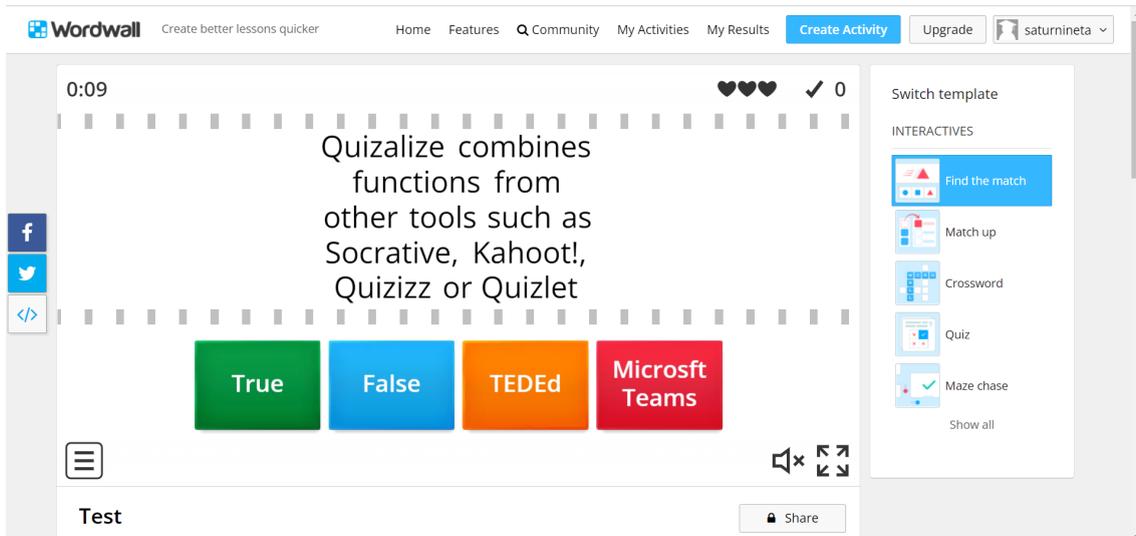
4. Prepare an activity using Wordwall. Log in and press “Create Activity”:



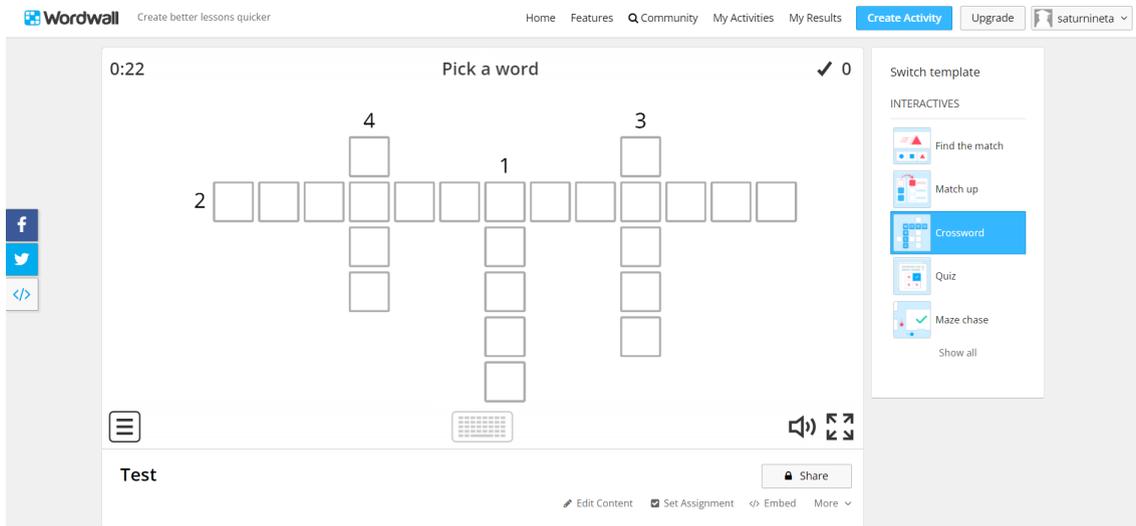
5. Choose the type of activity. There is a wide range to choose from: airplanes, quizzes, crosswords, unjumble, etc. We are choosing “Find the match”.

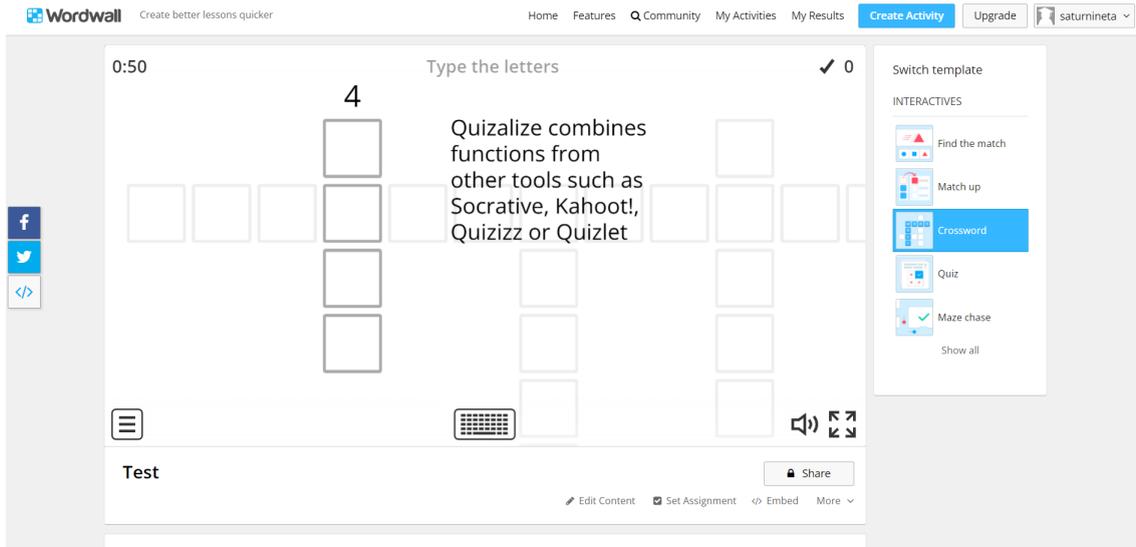


6. Students have to think of questions and different answers, and they have to make sure they select the right answer.

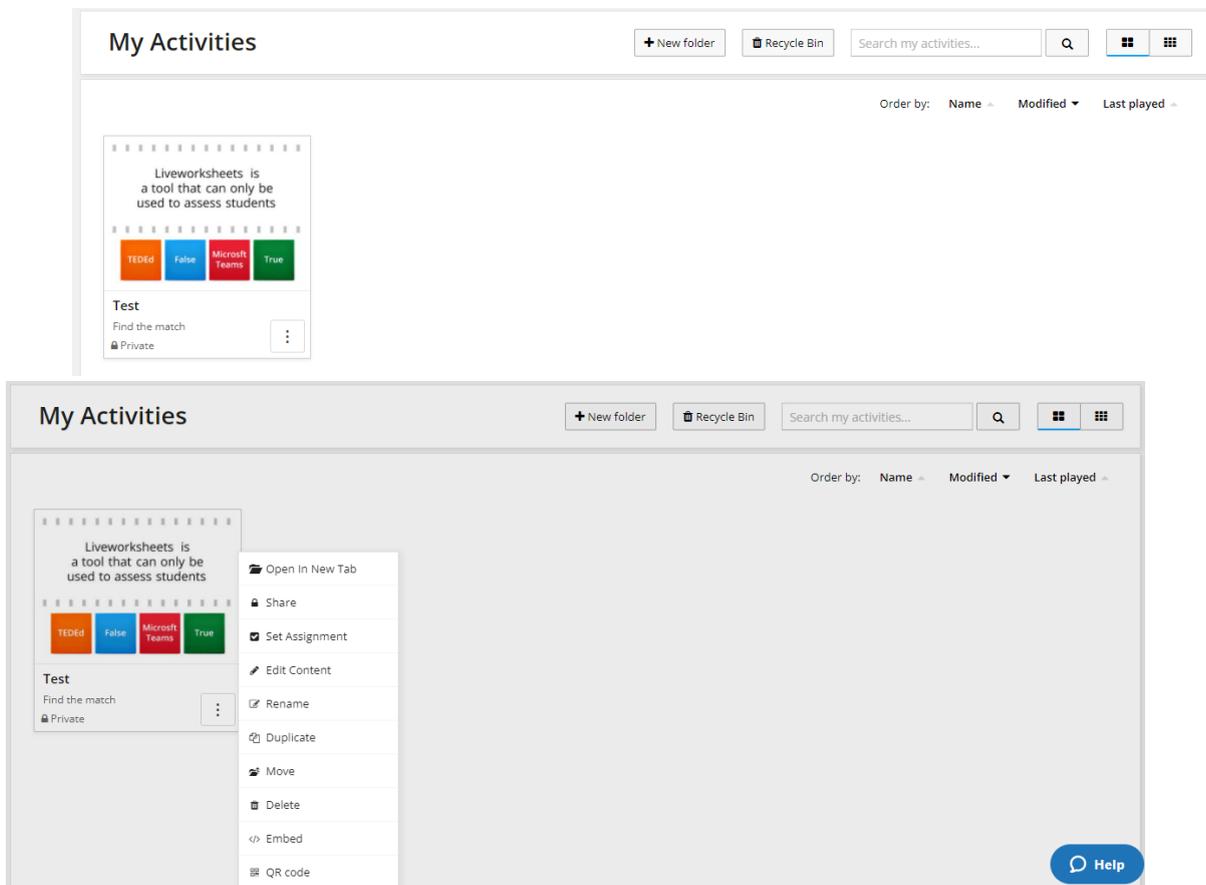


7. Even though we have chosen this type of activity, once you create the first one, the rest of activities are created automatically:

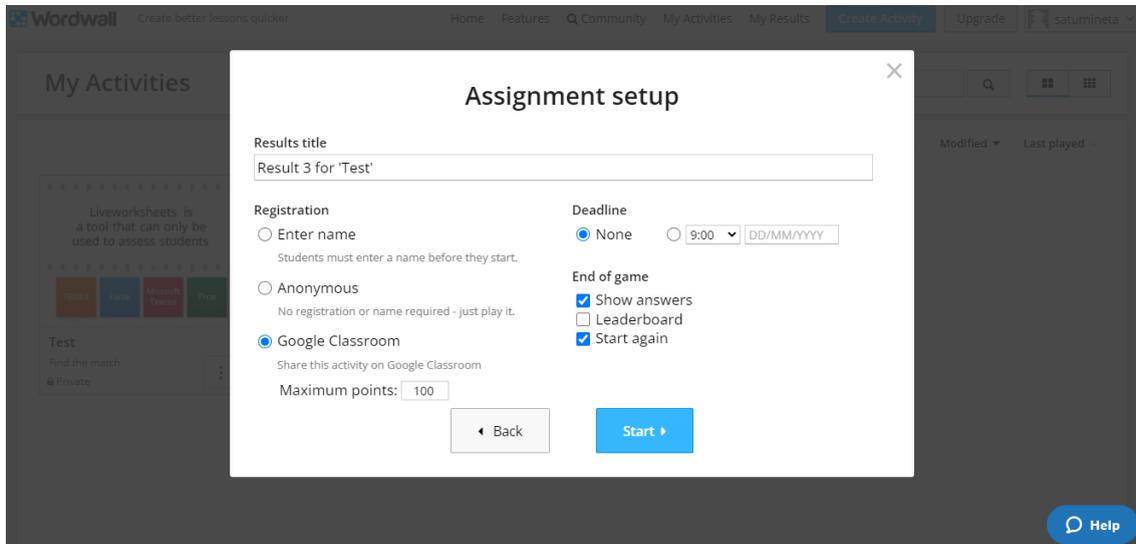




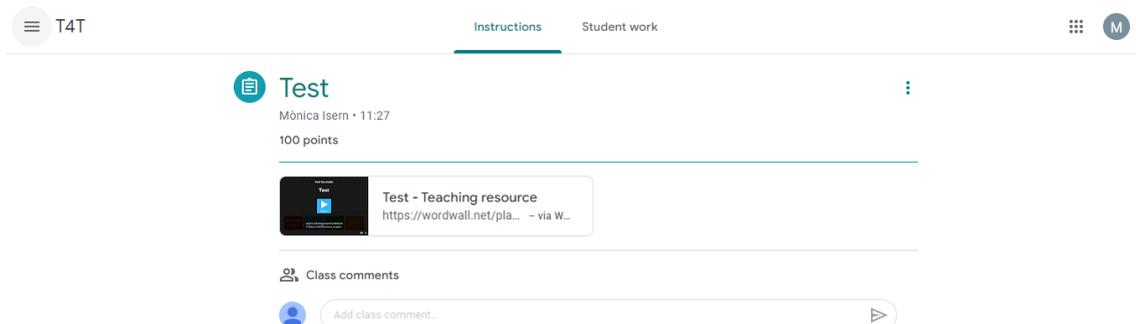
8. The next step is to upload the activity to Google Classroom. This can be done from the Wordwall account. Open “My Activities” and click on the three dots next to where it says “private” and click on “Set Assignment”:



9. Select “Google Classroom”, fill in the boxes and click “Start”:



10. A screen will come up. Press “Agree”. The activity will be now displayed in Google Classroom:





What we have learnt

You have reached the end of module 2. By now, you should have learned how to make your lessons more interactive using a variety of available digital tools. Now you can search for and install software and apps on your devices and look for others that may not be listed here, depending on your needs and those of your students.

It's important to choose the digital tools that will help you and your students, and they do not have to be the most popular. It's important to remember that tools that are available for free now may not be free in the future. They are constantly changing and you need to stay up-to-date.

Glossary

Blended learning – A style of education in which students learn via electronic and online media as well as traditional face-to-face teaching.

Flipped classroom – it's a kind of blended learning, where study that was 'traditionally done in the class is now done at home, and what was traditionally homework is now completed in class' (Bergmann & Sams, 2012). In a typical approach to flipped learning, students watch a teacher's explanation of something on video at home, and then practise what they have learnt when they come to class.

Digital tools – educational programmes, websites or online resources, and digital processing systems that encourage active learning, knowledge construction, and exploration in the teaching and learning process. Source: <https://www.igi-global.com/dictionary/digital-tools/66587>.

Collaborative tools – online collaboration tools are apps, software programs, or platforms that help businesses and their people streamline the creative process, and work together more effectively, and efficiently. Source: <https://www.bynder.com/en/glossary/collaboration-tools/>.

Engagement tools – tools that help us better interact, in this context, with our students and between students themselves.



Tips for further reading

- ❖ **Brindley and Walti (2009) Creating Effective Collaborative Learning Groups in an Online Environment** – <https://files.eric.ed.gov/fulltext/EJ847776.pdf>
- ❖ **Group work: Using cooperative learning groups effectively** – <https://cft.vanderbilt.edu/guides-sub-pages/setting-up-and-facilitating-group-work-using-cooperative-learning-groups-effectively/>
- ❖ **Arden, M. (2021) The 20 Best Tools for Virtual and Distance Learning** – <https://www.prodigygame.com/main-en/blog/virtual-learning-tools/>
- ❖ **Thompson, S. (2017) 7 Online Communication Tools That Can Help You Collaborate In Your eLearning Teams** – <https://elearningindustry.com/7-online-communication-tools-collaborate-elearning-teams>
- ❖ **Gupta, P. (2016) Tools, Tips & Resources Teachers Must Know to Learn About Gamification of Education** – <https://edtechreview.in/trends-insights/insights/2293-gamification-of-education>
- ❖ **Essential Gamification Tools** – <https://educationalresources.online/essential-gamification-tools/>

Check also our T4T Library. [Here are some useful resources:](#)

- ❖ **Reissman, H. (2018) 7 smart ways to use technology in the classroom** – <https://ideas.ted.com/7-smart-ways-to-use-technology-in-classrooms/>
- ❖ **Miller, M. (2019) 30 interactive Google Slides activities** – <http://ditchthattextbook.com/8-interactive-google-slides-activities-for-classroom-excitement/>
- ❖ **TeachThought Staff (2012) How Deeper Learning contributes to Digital Learning** – <https://www.teachthought.com/technology/digital-learning-tools-function/>



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