DiGiTaL
digital games treasury and library

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Literature Research in Project Themes

WEB2.0 DEVICES

USING WEB 2.0 TOOLS TO ENGAGE LEARNERS

Introduction

Web 2.0 tools are free digital programs that can be used for creating and sharing student generated projects and products. They areinteractive, multi-purpose, easy to use digital platforms that encourage students to collaborate with each other or create and share individualized response products.

Web 2.0 tools provide engaging ways students can interact with, and most importantly, learn from course material. They are particularly helpful when aligned to teaching and assessment exercises meant to increase student engagement, require students to summarize information, or verbalize insight

into their conceptual understanding through means other than traditional writing exercises.

Web 2.0 tools also provide students an opportunity to interact with others as they share their knowledge. Students can collaborate with classmates to create response products, or they can share completed products with peers in their class, students in other sections, or other learners around the world. Web 2.0 tools create opportunities for students to share what they are learning with a wider audience.

What are Web 2.0 tools?

Web 2.0 tools can very broadly be defined as enduser applications that require dynamic interaction, social networking, or user interfacing between people and information. They almost always have accompanying websites and associated apps for smart devices. In a Web 2.0 environment users decide how they want to use, interact with, and create information. This contrasts with earlier Web 1.0 environments where one simply read static information on the Web (Morrison & Lowther, 2005).

In addition, users have the ability to generate and manipulate content from multiple locations in a Web 2.0 environment. Users can add images, videos, or links to other media content. Students have unlimited opportunities to individualize the content they embed in their products, and the ease of use of these tools encourages student creativity. Unlike traditional pen and paper type responses, students are not limited by their own artistic abilities, pagelength, or word count limits. Students will often go beyond the basic expectations of an assignment because these tools facilitate students' creative processes.

Familiar examples of Web 2.0 sites and tools include wikis and blogs (**PBworks** and **WordPress**), social networking sites (**Facebook** and **Twitter**), image and video hosting sites (**Flicker** and **YouTube**), and applications to generate Web content for education, business, and social purposes (**Wikipedia**, **Weebly**, and **Instagram**). It is important for teachers to remember that the magic is not necessarily in the tool itself; teachers must first consider their objectives for the lesson as well as the purpose of the student response project. The right tool can help students synthesize their learning, engage more deeply with the content of a lesson, and interact with other learners in more meaningful ways than traditional response projects or assignments.

Benefits of Web 2.0 tools

One of the benefits of Web 2.0 tools is their ease of use. Most students find these tools to be intuitive and userfriendly. Because of this, there is little time

wasted in learning how to use the programs. The tools facilitate interactive learning and innovative responses to assignments and assessments. Students see their ideas take shape quickly, and they are rewarded with professional-looking results. It is also easy to edit the projects as they are being developed so students tend to take more risks during the creative process. This ease of use combined with the quality of the finished products increases students' self-efficacy, and it motivates students to engage more earnestly and actively in the content of their responses.

Web 2.0 tools also can facilitate authentic interactions with content and with other learners. These tools offer students opportunities to solve realworld problems and to collaborate in meaningful ways with peers in facetoface or online classrooms. Students have the freedom to customize their responses using multimedia or multiple modalities. Unlike a term paper or more traditional response project, no two projects look exactly alike. Students' individual interpretations and representations of their conceptual understandings can easily be shared with others, thus increasing the learning opportunities for all.

Choosing and using a tool with students

The right Web 2.0 tool for the task is the one that matches the objectives of the lesson. The tool should not just be an "addon," but rather it should be a natural extension of the lesson that reinforces the skills or concepts taught. What do you want students to learn or to be able to do as a result of the lesson or unit of study, and what tool will help you achieve that goal?

There are a couple of useful websites that describe a variety of tools according to instructional purposes. One such website is **http://cooltoolsforschools.wikispaces.com/**. Another is **http://webtools4u2use.wikispaces.com/Finding+the+Right+Tool** These websites are organized by the types of tools, such as presentation drawing, video sharing tools, etc., and they provide links to the websites for different tools. Most tools can be adapted for a myriad of instructional or assessment purposes and subject areas. Five examples of specific tools, their applications, and sample student projects are provided below.

Sample student work

Described below are five tools and a brief summary of how each was used by students in a learning or assessment exercise. These specific tools were chosen because of their versatility and the fact they have no cost to download and use. They all have a "pro" version for a nominal fee. The exception is VoiceThread and it was chosen because it is commonly supported

by many campus across the United States or can be purchased by individual instructors for a relatively low fee.

ShadowPuppet. This tool belongs to a group of tools known as digital storytelling tools. ShadowPuppet works for iOS devices like the iPhone and allows a user to capture images and then record a message over the image(s). An Android alternative is WeVideo. One example of its use is to have students summarize an exercise they have completed. Such a review allows instructors to use it when gathering students' thoughts might be better, or differently, done verbally than through writing. The following example shows how students captured their work and additional thoughts through an assessment technique abbreviated by the acronym RERUN.

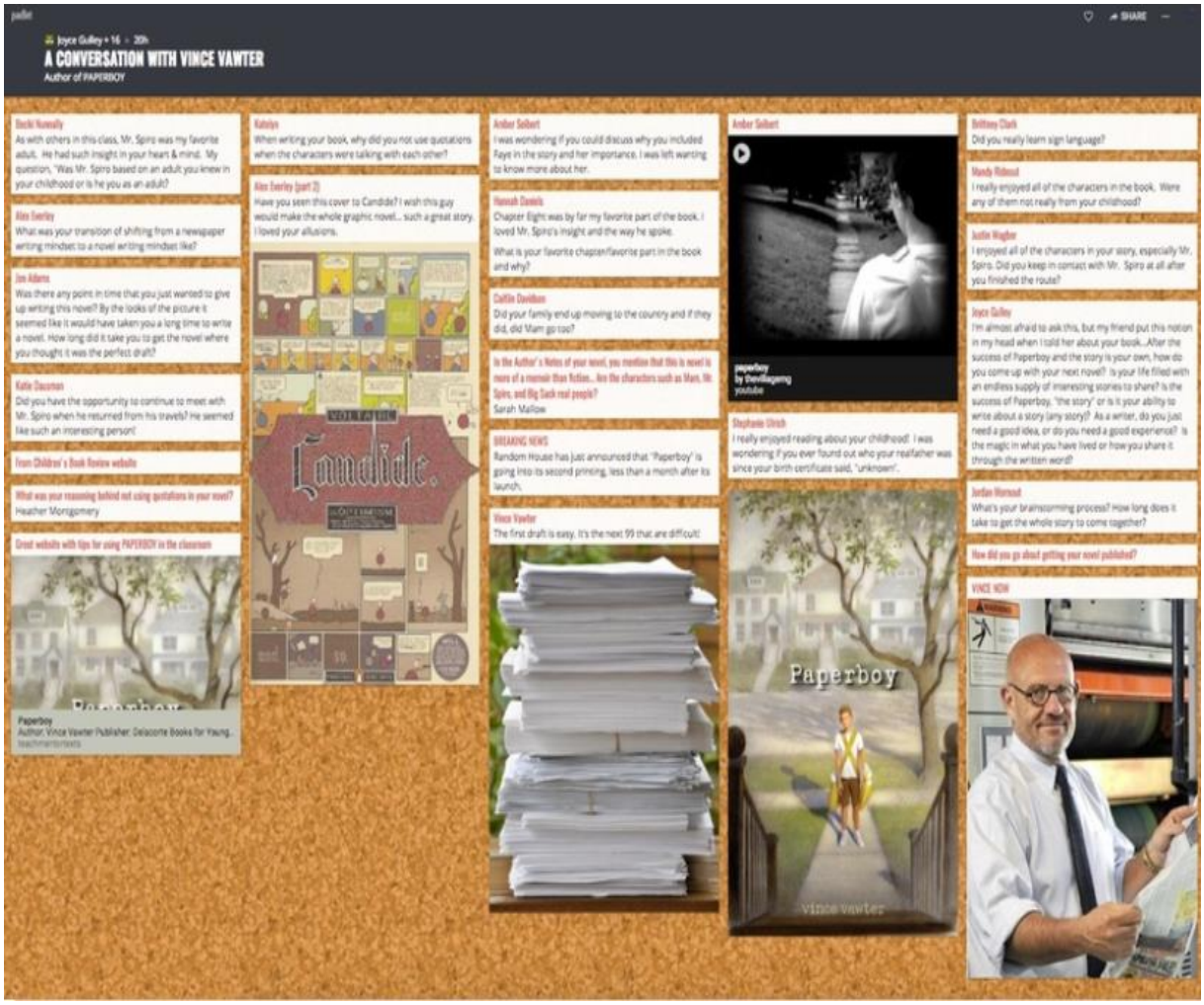
- Recall: Summarize what you did in this exercise.
- Explain: Explain the purpose of the exercise.
- Results: Describe the results of the exercise and what they mean (support claims with evidence).
- Uncertainties: Describe what you are still unsure about.
- New: Explain at least one interesting thing you learned (or at least one question you have).

Students' captured recordings are stored on the ShadowPuppet website but can be downloaded as an mp4 video file, uploaded to YouTube as students complete their work, or forwarded as a viewable link from ShadowPuppet's website. The creator can also delete the recording.

Examples connected to other disciplines: Shadow Puppet, and other digital storytelling tools, can be used any time students need a way to organize their thoughts and communicate their findings to a wider audience. In a history class, students could present primary source documents and analyze their content. Anatomy students could create a digital storytelling presentation to discuss one of the body systems. Students in an English class could use digital storytelling to showcase their original poems with narration and a musical soundtrack.

Padlet. Padlet is a multipurpose tool acting as an electronic corkboard where students can post ideas, photos, images, videos, or documents. This digital corkboard is both versatile and easy to use. The user can control the privacy settings on the Padlet to allow others to add content or simply to view existing content. Viewers do not need an account to post comments, and the owner of the Padlet retains full control to moderate or delete comments. In the assignment displayed here, students created questions in advance of a Skype visit with a children's book author. The link was shared

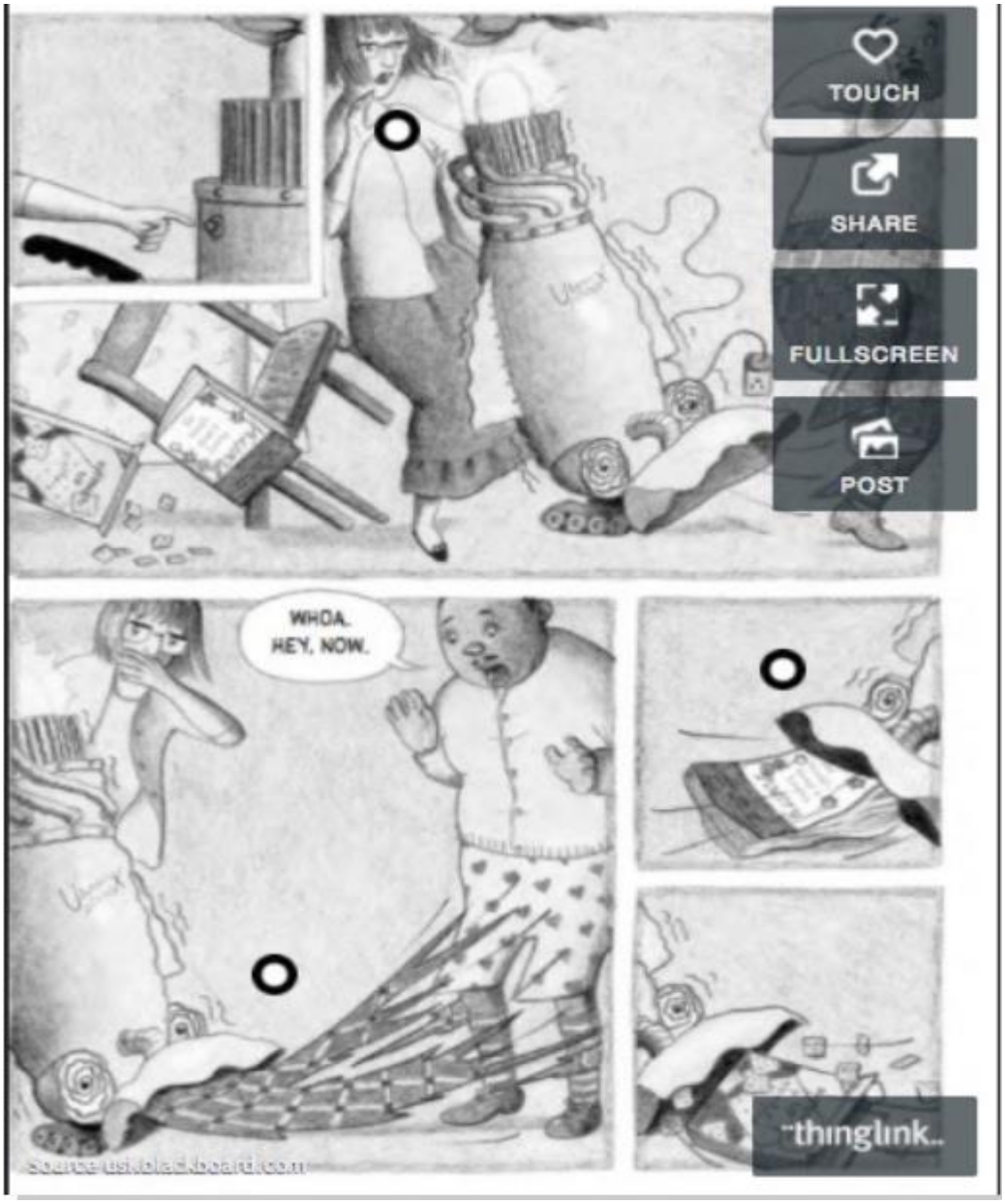
with the author in advance so that he could see the types of questions students would be asking.



An example of Padlet.

Examples connected to other disciplines: Padlet could be used in any content area classroom for bellringer activities or exit tickets at the end of class. Marketing students could use Padlet as a corkboard to post effective print ads or links to digital ads. Political science students could use Padlet as a place to collect campaign slogans and reflect on their significance.

Thinglink. This tool is useful for sharing visual information. The user uploads an anchoring image, such as a map, photograph, or drawing. The user then inserts "tags" which link to additional information such as definitions, maps, images, or other websites. In the example below, the student used images from a novel to illustrate vocabulary that is used in the book. The dark circles indicate where the viewer should click to Access additional information.



An example of Thinglink

Examples connected to other disciplines: Thinglink could be used as a getting acquainted activity; students could post pictures of their hobbies and interests and then share with classmates. Thinglink could be used as a tool for many different types of reports. For instance, when studying the lives of famous people in any discipline, upload an image of the subject and create links to this person's accomplishments, noteworthy speeches, or historical events related to the subject. Similarly, Thinglink could also be used effectively with any type of mapping activity, such as identifying landforms or landmarks in a geographical location.

Weebly. Weebly is one tool in a family of tools that users use to create websites. Like many tools it offers a free and "pay for" version. Instructors and students can easily get what they need from the free version. Perhaps the most significant limitation is the inability to upload video with the free

version. However, an easy work around is to upload videos to YouTube and connect the video to the Weebly site. One of the many useful features in Weebly's setup includes the ability to design one's website using a drag and drop tool bar. Examples of items that can be added include images, slideshows of images, text boxes, hyperlinked text, files, linked YouTube videos, maps, and linking Web elements containing embed codes. The image below links to a sample assignment with preservice elementary teachers. One of the course's objectives is to provide an environment that models many of the teaching and assessment strategies future teachers can use in a classroom. Using their cell phones, students capture, and reflect on, these moments they build a website throughout the semester that includes their work, the strategies we model, and relay its connection to themselves and their future students. It, therefore, adheres to one of the more significant aspects of writing, learners should "write a little a lot" versus "write a lot a little." That is, the more ongoing the writing the more students can remain engaged in processing and internalizing information. Additionally, if one is using other Web tools those products can be linked or embedded to their website.

An example website created with Weebly.

Examples connected to other disciplines: Weebly can be used to showcase student work in any discipline. In art classes, students could create digital portfolios of their work showing pieces they have created over time or in different media. History students might use Weebly to analyze a specific event and its impact on society. Students in an English class could share their reflections on assigned or free choice reading selections.

VoiceThread. Voicethread is a free tool to use for presentation of material. It can be used by the instructor to record announcements or lectures, and it can

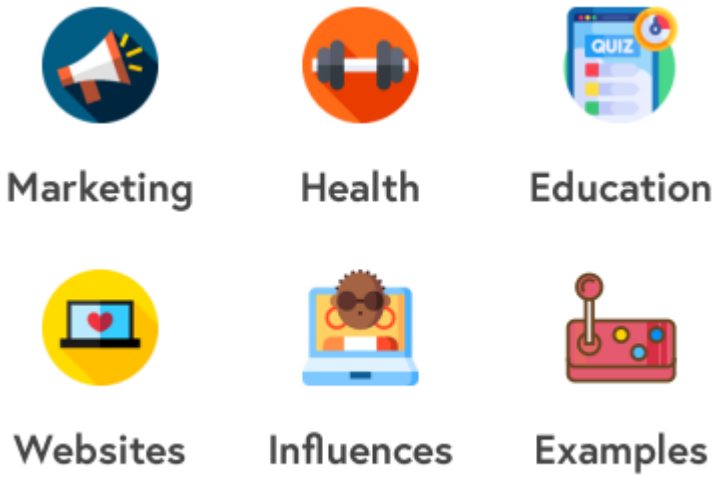
be used by students for individual or group projects. Voicethread can be a static onesided presentation, or a collaborative tool where multiple users interact around a topic, an image, a Powerpoint presentation or other media. Students can leave audio, video, typed, or drawn comments using a computer, tablet, or cell phone. Voicethread has a computerbased platform, as well as apps for iOS and Android devices. The following example is one student's presentation on a children's book illustrator. The assignment required students to research an illustrator's life and work. The student created a Powerpoint and then uploaded it to Voicethread. The student then provided an audio narration to elaborate on the slides, as well as music to enhance the presentation. Voicethread allows for viewers to comment on the student's work in both a private mode (viewable by the project creator) and a public mode (viewable by anyone with the link to the project). The creator of the project can moderate the public comments or delete them entirely. Many universities have Voicethread integrated with their campuswide learning management system, such as Blackboard, so that the posting, sharing, and grading of projects is seamless.

An Example Voicethread presentation.

Examples connected to other disciplines: Because of its interactive capabilities, Voicethread can be used in multiple disciplines, and it is especially helpful when students need to present their work and then receive feedback from classmates, the teacher, or anyone with whom the link is shared. For instance, students in a world language course could use Voicethread to practice their oral speaking skills. The instructor could then provide private comments to that student reinforcing correct pronunciation of vocabulary words. Science students could use Voicethread to create an oral report on any topic, and

classmates could add written or oral comments reflecting on what they learned by listening to the report.

Gamification is the addition of game elements to non-game activities



What is gamification?

Gamification is the process of using game mechanics, elements, and principles and applying them to non-game contexts to engage users better.

Gamification can be used in many different contexts. Businesses often apply gamification to employee training, recruitment, evaluation, and organizational productivity.

Other uses include physical activity, voter engagement, and customer loyalty programs.

The point of gamification is to inspire users to engage with the content. Especially with tasks that are not enjoyable, such as an in-depth safety training program or compliance training.

Some examples of game mechanics used in gamification are:

1. Goals - Complete the task and get a reward, such as a badge or points.

2. Status - Users increase their level or rank through completing activities. Leaderboards show who is 'winning' and inspire users to work harder to compete.

3. Community - Users are paired or put in groups to solve problems, complete activities, or otherwise achieve an objective.

4. Education - Tips, tricks and quizzes are given to the user throughout the process.

5. Rewards - As mentioned above, points and badges are common, and useful,rewards. Other rewards could be discounts, coupons, or gift cards. This fuels the user's motivation and keeps engagement high.

Successful gamification will tap into the user's intrinsic motivation, such as becoming more skilled at their job, while offering an extrinsic motivation, such as rewards, points and badges.

How Does Gamification Work?

Gamification is the application of game-design elements and game principles in nongame contexts. It can also be defined as a set of activities and processes to solve problems by using or applying the characteristics of game elements. Games and game-like elements have been used to Educate, Entertain and Engage for thousands of years. Some classic game elements are; Points, Badges, and Leaderboards.

Points are used as visual identifiers of progress in sports, reward cards and video games

Badges display achievement, whether from service in the military or a goldstar on school report card

Leaderboards are used across sports, sales teams, and in general life to present competitive placement

Gamification in Education

1. Computer Games: Minecraft - Education Edition

Math Blaster and Treasure Mountain are some of the earliest examples of popular educational games, however, one of the best and most current examples of Game-based Learning is Minecraft: Education Edition. This game teaches students how to code through one of the most popular game formats in the world. If you're a teacher you already know a lot of your students love this game and the game mechanics that come with it.

2. Apps: Google's Read Along

Another app-based learning game is “Read Along” by Google. The app uses Google's voice technology to encourage kids to read and follow along with stories. It has great reviews and is used around the world. The only drawback at the moment is it only being compatible with Android at the moment.

3. Classroom: Kahoot

Kahoot allows you to create a multiple choice quiz through a quick website link share. This allows for students to use their phones in a productive manner, participating in selecting or typing their answers to in-class quizzes in real-time.

Kahoot is one of the most straightforward and interactive examples of gamification motivating people in the classroom.

4. eLearning Platforms: Archy Learning

Archy Learning is a simple gamified eLearning platform. Teachers can cut and paste YouTube links and classroom notes into a learning pathway. Where it gets really fun is with the addition of gamification strategy in the form of class quizzes, educational video games, mixed media exams and awarded certificates upon completed courses for an allaround gamification learning experience.

How To Create Educational Content?

Whether you want to adapt your teaching program or create your academic space on Internet, it's important to know **how to create educational content** for your students. At the moment, education is not understood without digital content, because students are digital natives, and, of course, because of the great possibilities they offer.

For a long time, Internet has been seen as an entertainment tool or a mere source of information. **However, its potential for education is amazing**. As a result, educational digital content is becoming more and more relevant in today's education.

Over the last few years, the creation of educational content has evolved from the mere copying of textbooks and their upload to the Internet to the implementation of resources adapted for computers, tablets or mobile devices, with all the possibilities offered by current connectivity.

In this way, it has evolved from adapting to a PDF or PPT file, to the use of video tutorials, podcasts, e-books, webinars, online courses, social networks, etc., which has allowed greater interactivity between teachers and students.

This new approach to digital educational content opens up a world of possibilities that make education easier. For example, it allows both teachers and students not to depend on where they are, even though an Internet connection is not available, since many of them are downloadable and can be checked "offline".

How to create educational content? 5 tips

If you don't know how to create valuable educational content, from Pedagoo we bring you 5 simple steps:

1. **Before we start… make a plan**: You should define very well the goals and purpose of the course. They will depend on the agenda, the level of difficulty and the evaluation methods. So, before you look into how to create educational content, check who your audience is and their needs.
2. **Research process**: This step requires more hours of work. Consider students and the purpose of the course to organize educational content. Once you've finished your research, make sure you understand the topics you want to share and have an expert eye to select the final content. However, you should always check your sources.
3. **Enrich your content**: You must contextualize the content through your knowledge and experience. In addition, it is very important that you answer questions and make sure that your students know how that knowledge applies to their learning goals. You can also tell your students where they can find additional content.

4. **Is your content ready? Distribute them properly!**: You have many options, educational platforms like Pedagoo, forums or learning communities, social networks… Our recommendation is to keep a schedule so your students can expect your content on a regular basis. Don't forget to share each new post!
5. **Store and organize your contents**: you should not just focus your teaching work on selecting and sharing contents but also on preserving and tracking the information you submit. How can you do this? By storing, organizing and filing the contents. You should keep track of where, when, how and what content was displayed.

Check out these tools to create educational content

Looking for ICT (Information and Computer Technology) tools for teachers to improve your classes? In that case, this is the article you were looking for. With them you can, among other things, create online presentations, work in shared documents or evaluate in an original and fun way.

- **Goconqr:** Thanks to this tool you can create mindmaps, notes, diagrams… Through the following video you can watch a tutorial on how to create a mindmap.
- **Canva:** This is a popular tool that offers new learning experiences. For example, it helps students to develop their visual communication and creativity skills. You can use it to create, infographics, documents, etc. Or also, you can use one of it many templates for your own creations.
- **EdPuzzle:** You can use this tool to create educational videos. For example, you can even edit exisiting videos to help students develop understanding skills, identify main ideas, etc. Then, you can also create questions for students to answer. Here you can watch a tutorial on the tool!
- **Flipgrid:** You can generate class discussions with this tool. The platform includes different topics. Then, you, as a teacher, can propose them in the classroom. Finally, students can participate by recording their points of view in short videos. In this way, students can improve skills such as public speaking or learn different ways to express their ideas.
- **Play Posit:** Like with EdPuzzle, you can create interactive videos with this tool. One of it features is that you can introduce pauses so students can answer questions and deepen in the knowledge of a particular topic. Then, teachers can track the students who have already answered the questions.

Content Types In An Online Environment

When creating content online, ensure to put content in:

1. Text

Try to give your students some notes to read even if it is simply a paragraph or a few lines. You can save it as PDF and upload it for them to download and read in their own time.

2. Image

You can get free images that depict your content or even better create images with free online tools. Tools like Canva, Adobe Spark, and Infographia can be used to create graphics and infographics easily and for free. This can be shared with your students to help capture the major points in your notes.

3. Audio

In addition to the above, teachers can record and post audio files with their text or image content. You can explain the note or a little concept in a short audio clip and upload it for your students. You can also find relevant podcasts and share them with your students. Audio and voice notes should be as short as possible. This will better ensure that your students don't drift off while listening. When using audio to teach, it should be a maximum of 10 mins and 10mb.

4. Video

Videos can be used to further engage your students. You can either find a suitable video online on YouTube or create one. To make a virtual class more engaging, you can show your face so your students not only see your content but your face while explaining the content. Teachers should find or create relevant videos that can be used to teach and communicate content to #students—this increases student engagement NB—Ensure your video recordings are a maximum of 10 mins and 15mb; you can compress it if it is more.

5. Games

Games can be used in teaching and learning in two ways.

1. Game-based learning

Game-based learning is finding and using real games that can help students learn. A simple Google search on "games to teach osmosis" will bring up options that teachers can maximize in an online environment; examples include Mathland, Ducksters, etc.

2. Gamification

Gamification is using game principles, like levels, points, badges, lives, leaderboards, etc., for the purpose of learning. This is not exactly about playing

games but about taking what makes games fun and engaging and adapting them for learning purposes. It involves giving students points or badges for completing activities or helping their peers, displaying a leaderboard based on total points, etc. This engages the students and makes them active learners. Whether it's in a face-to-face or online environment, the light bulb comes on when you present content in a more engaging way—try using videos or even games!

6. Internet

I remember taking a course in school and when we asked the lecturer for the course material, he simply said, "The entire internet is your text and it is examinable." This for me is a big advantage of teaching online. Your students have access to content beyond you. They can learn from other experts in the field and this adds to their understanding of the concepts. Even though it takes some control out of your hands, it is very beneficial for students.

Students can search for or build content based on the topic. They can find relevant articles, blogs, videos, documentaries that can be of help to their understanding of the concept. Teachers can also use these to present content to students.

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