# What is the Web 2.0

## 2.2.4. TOPIC 4: INFORMATION MANAGEMENT

### 2.2.4.1 – The Google Drive and its apps

Providing reliable, cheap and fast internet access is linked to the idea of the cloud. The bases of this idea are mainly economic and technical: data in the cloud do not know geographic constraints because it is accessible from everywhere, it has a low cost, it is not lost if a computer is damaged, it uses software that is constantly renewed etc. Apart from these, however, there are opportunities for teaching and learning.

Files in the cloud can be accessed by their creator, but they can be accessed by other users also (if their creator allows it). A representative example is the service/application known as Google Docs. Users who have a Gmail account (important but not always necessary) can use online word processor software, spreadsheets, image editing, presentations, databases, and questionnaires. The user has access to the relevant software through the internet and is not installed in his/her own computer. In addition, the documents created (such as pictures, questionnaires, etc.) are stored in the cloud, so they are accessible from everywhere and shared by many users (ITCP, 2017).

This latter feature, in fact, makes them important teaching and learning tools that can be exploited in many ways, tools that promote current qualities in education (eg collaboration: collaborative creation and management of documents, forms, presentations etc., sharing, familiarizing students with modern data and applications, contributing to collective creations, and finally to collective intelligence) and instruments that promote pedagogical principles.

In addition to the service mentioned above, other apps that can be used in education (YouTube, Google Classroom, Maps, Photos, Translate, etc.) are available.

The following sections aim to familiarize teachers with the use and basic application functions that allow the storage, organization and sharing of information and the co-configuration of text, presentation and form files. They also aim to provide suggestions for their pedagogical and didactic use.
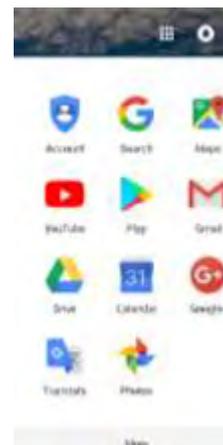
### 2.2.4.1.2 Create a Google Account and get acquainted with the most basic Google Apps

In order to create a Google account we start from the address: https://accounts.google.com/signup/v2/webcreateaccount?hl=en-GB&flowName=GlifWebSignIn&flowEntry=SignUp

We fill in the details requested (name, surname, username and password). We follow all the steps by pressing "Next" each time and following the prompts of the screen. This process is also a Google Account creation for all of the company's services (Google+, YouTube, etc.). Google provides a number of applications, including Google Drive. In the next sections it is presented the way of its use and exploitation. Some other apps that are typical and quite usable in education are: Google Maps, Google Photos, Google Classroom, Youtube, Translate, Calendar, Google+ and some more. All of them are collaborative applications and use the cloud for their organization and storing.

### 2.2.4.1.1 Uploading, storing and organizing data in the cloud (Google Drive)

Google Drive is a cloud storage service with 15 GB of free space (together with Gmail). In order to use the application, we open the Google Drive from the Google apps' page.



It is necessary to have an active Google account to access the application. If we already have an email address in Gmail, we enter using username and password.

Otherwise, we do what was described before or we gain access by clicking on the "Create Account" and filling in, on the page that opens, the information and data required. In this way we can directly create a Gmail account.

By clicking on "Drive" the following page will be displayed:
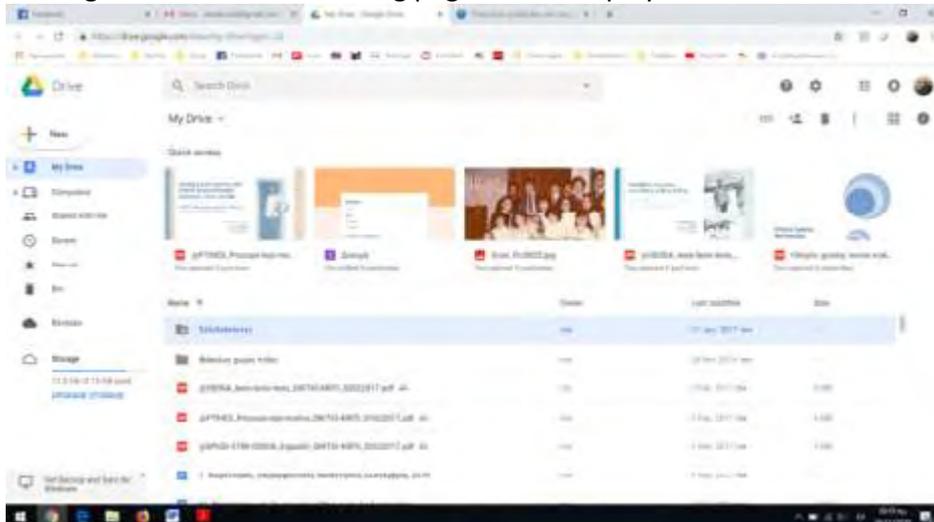


### Uploading and storing a file

To upload a file or folder from our computer, we click on "New" on the top left of the screen and select a file or folder. A window will open that contains the files or folders of our computer. We can simply select and upload the desired file or folder. The file is stored in the available Google Drive space and can just stay stored there and accessed by any computer or other users selected by the Google Account holder (account creator/manager). Then clicking on "My Drive" we can see the files or folders we have uploaded.

We can upload and store about 30 different kinds of files on Google Drive. They include well-known file types such as doc, pdf, xls, jpg, etc, but also Photoshop, Illustrator, and others.

Additionally, on Google Drive, we can upload and open files we can't open in our computer as we may not have the corresponding program set up. If e.g. we can't open a docx file on our computer we can upload it to Google Drive and open it from there. To organize the files on Drive, it is possible to place them in folders we create by clicking on «My Drive-New Folder" menu.

The application itself automatically classifies the files in "recent", "shared with other users" and "starred" namely. marked by the user with a star (as important maybe).
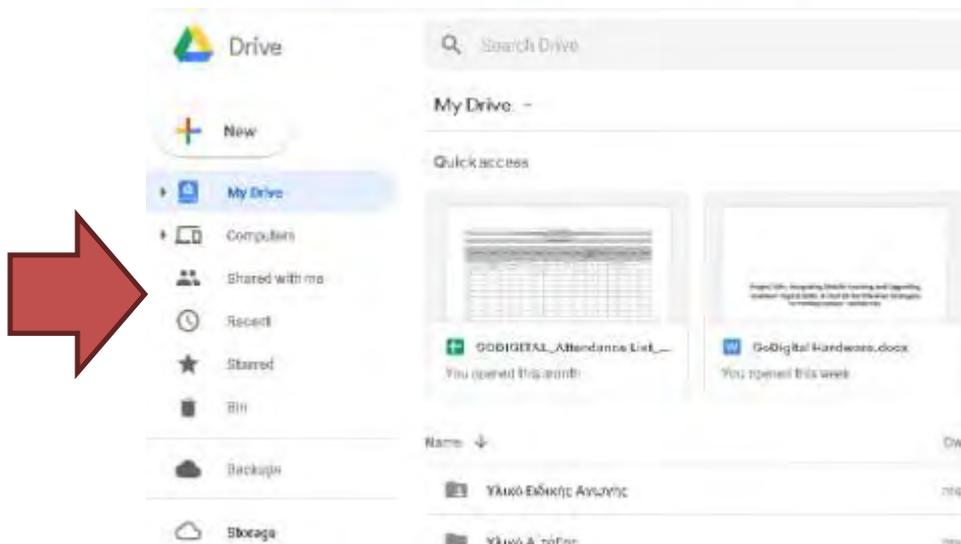
Finally, the files stored on the drive can be shared with other users with rights (edit, read, or comment) decided by the administrator/owner of that Google account, as it is being discussed in the next section.

## 2.2.4.1.3 Creating, managing, sharing, giving user permissions and cooperating in shared docs and presentations

**Creating and sharing a file**

Google Drive allows the creation and co-management of documents, slides, spreadsheets, forms, maps, designs, websites, and other applications.

To create a new file in Google Drive, we do not need to have this program installed on our computer. All we have to do is click the "New" icon on the left top of the screen and choose the type of file we want to create from the list that appears.

The options given to us are displayed this way:
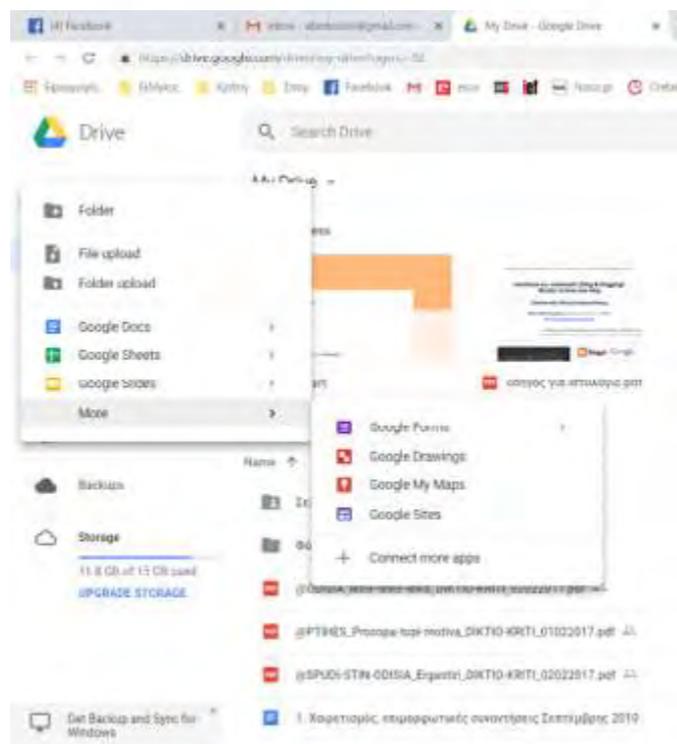
By clicking e.g. on "New" and on «Google docs- Blank document» a blank page of a new document will appear:
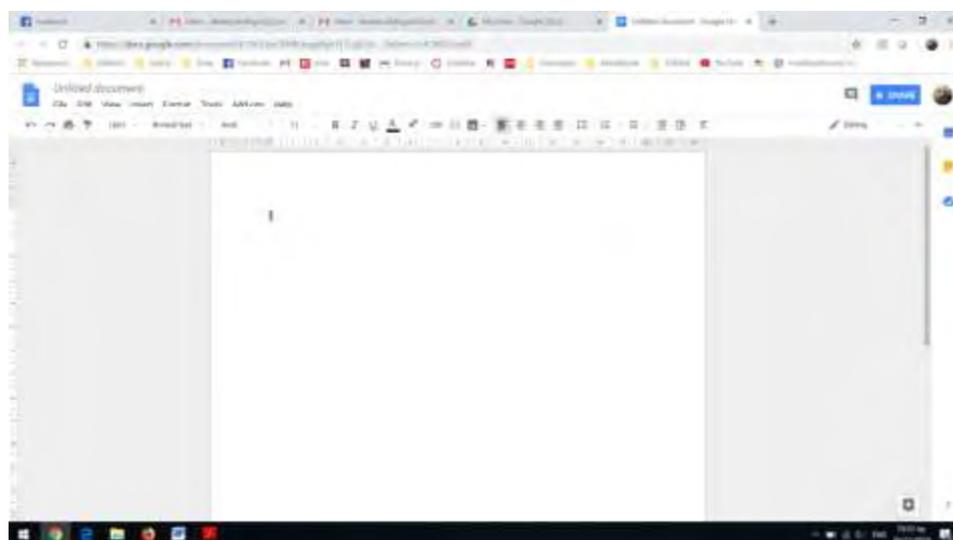


A text editor It will open, that resembles the usual text editor and has most editor tools of a text processor. Whatever we write on this file will be automatically saved without having to make any choice. To give a name to that document, we click on the File menu in "Rename", write a filename and press OK.

In the files we create, we can give rights to other users to process them (shared document). That's a big advantage of the program. We can even decide that more than one

uses can work at the same time on the same document, writing, modifying, correcting and completing wherever they want. This promotes teamwork and cooperative actions. Of course, synchronous and asynchronous collaboration capabilities are provided in the same document where editing rights have been given to users. We can share a document by right-clicking on the document that we want to share and choosing "Sharing."
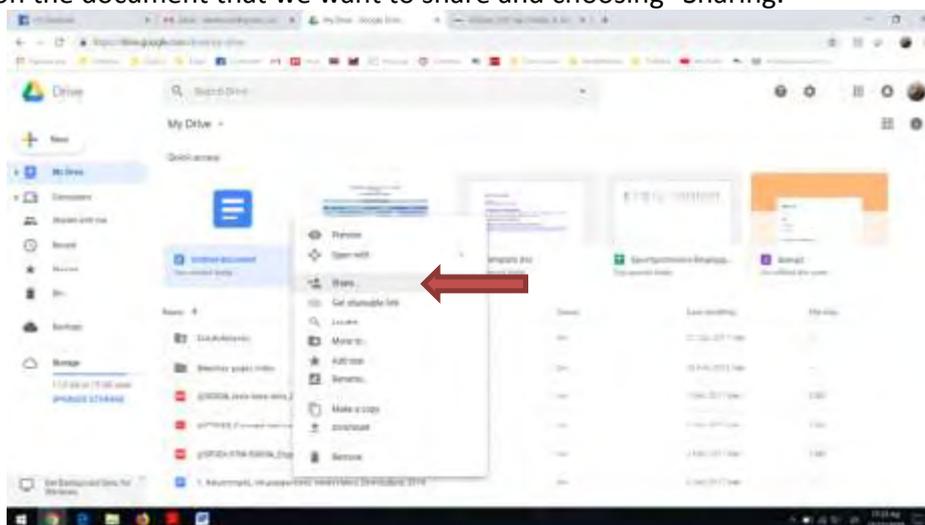


For a shared document we need to determine which specific individuals we are addressing for cooperation and the rights we give them to use it (editing, commenting or reading only). We invite partners/participants through their emails and those who open the document from the invitation they receive in the emails, co-operate and co-modify the document with others, who have similar rights including the administrator.
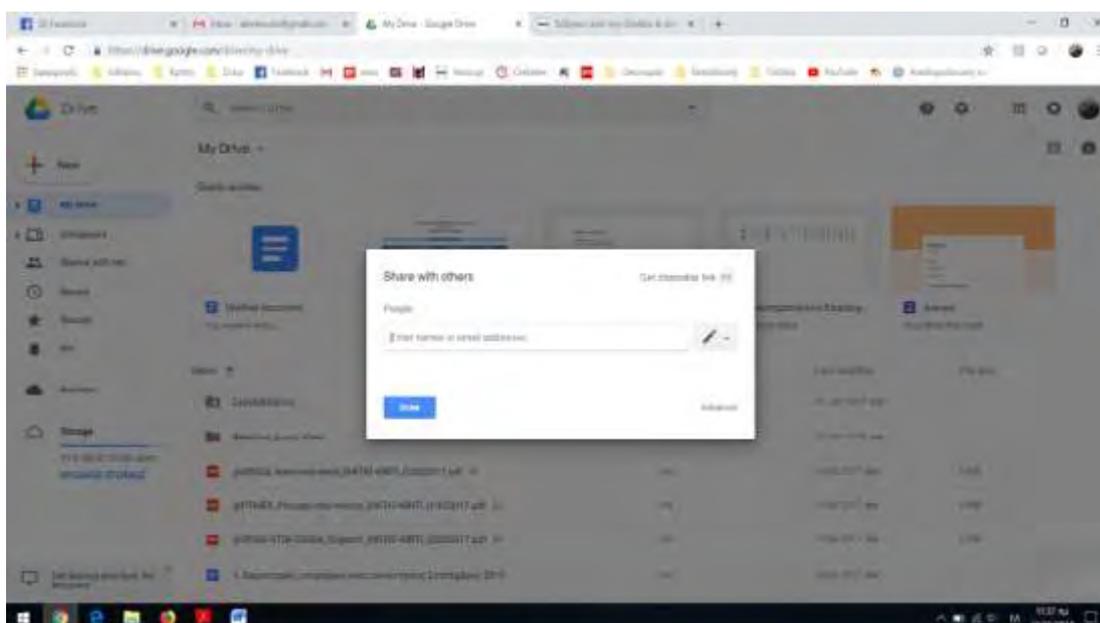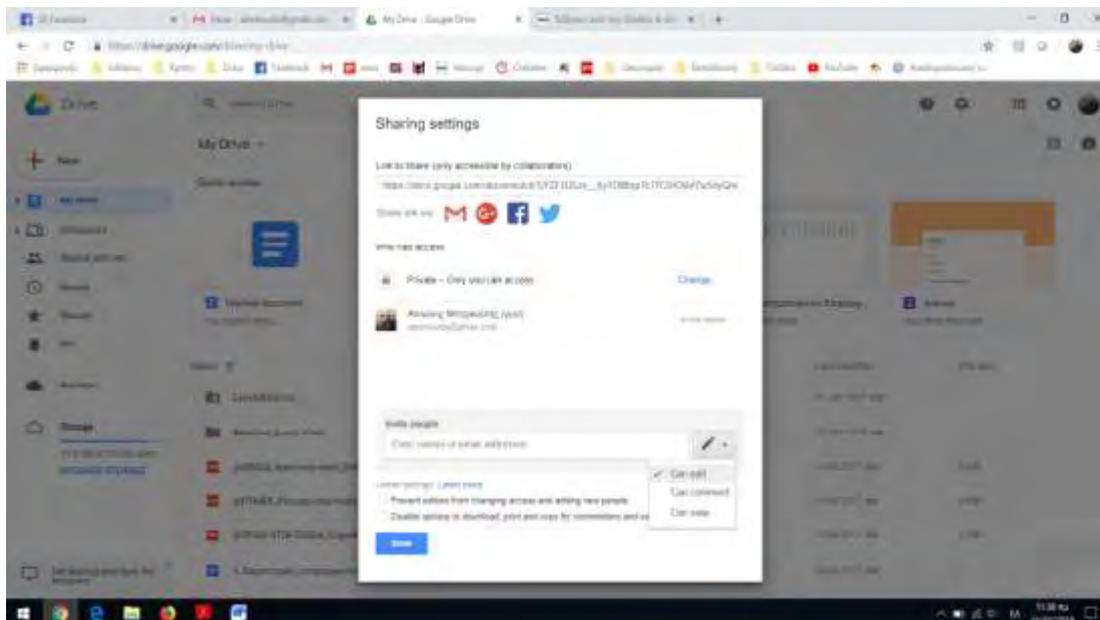
When we finish the document's procession and at any time during processing a Google Doc, it can be converted into another format (e.g. docx, txt, odt, pdf, webpage, etc.) and downloaded to the computer with the "Download As" command.

Similarly, following the same procedure described in the previous paragraphs we can open a presentation and give editing rights to user(s) in order to co-modify it with him/her/them. The presentation's environment has many of the tools of other known applications and allows users to co-configure multimedia presentations.

## 2.2.4.1.4 Creating, managing, sharing, giving user permissions and cooperating in shared Google forms. Receiving the incoming data

Google Drive enables us to quickly and easily build questionnaires or quizzes, share them with specific users or leave them available to everyone ("public") online and get participants' answers to a spreadsheet.

To create a questionnaire, we click on "New" and then on "Google Forms" as shown below. We can choose between a blank form and a template.
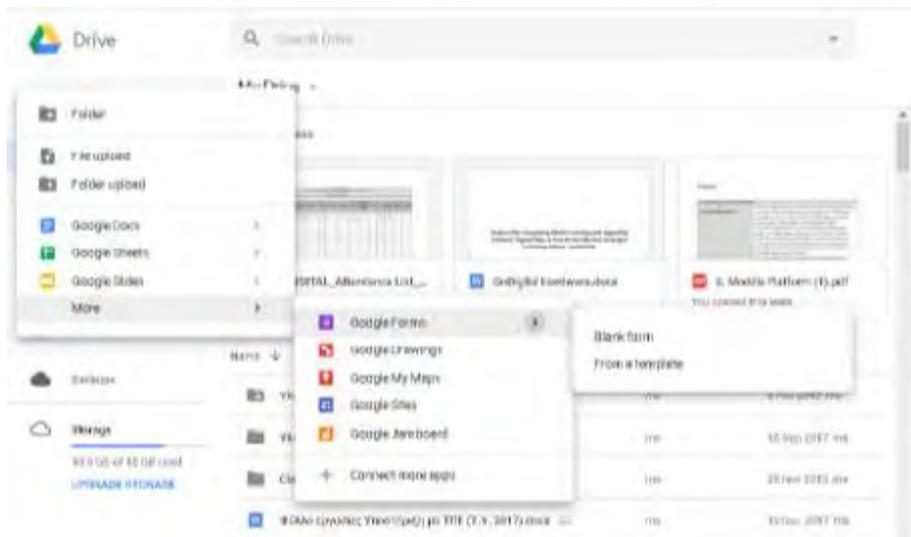
We give a name to our form in the "Untitled Form" field and save it. Then we start formulating questions and formatting them.
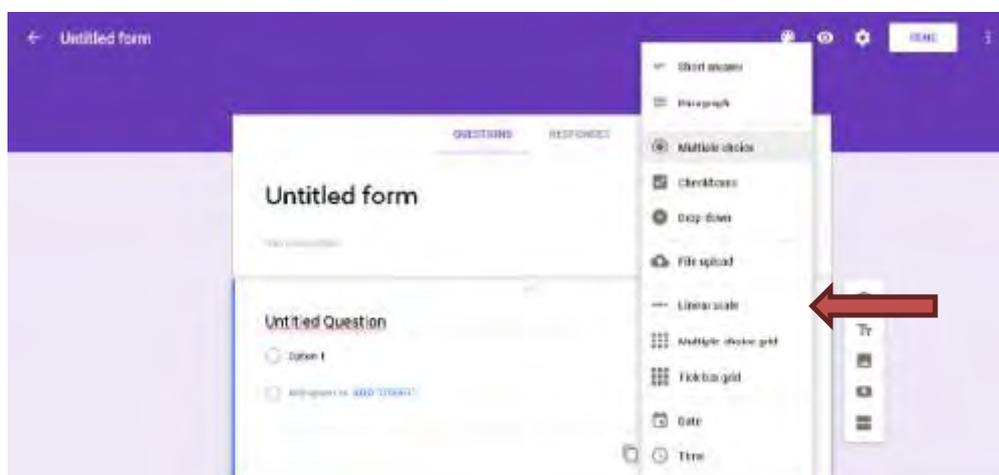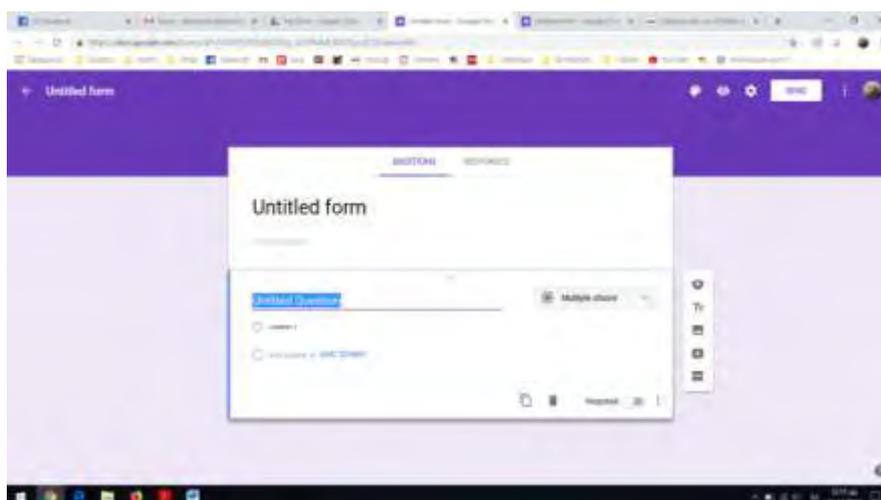
The first one appears automatically. The next ones we want to add we click each time the **+** tool located on the right.

In each question it is necessary to select first its type (short answer, paragraph, multiple choice, checkboxes, dropdown e.t.c). Then we type the question and possible answers. Questions are saved automatically There is the possibility to upload and include files such as, for example, pictures, videos, etc. The questionnaire can be structured in one or more sections. The Add a New Section the option is again given to the tools on the right. We can also duplicate a question or delete it.

At any time we can see our creation using the preview option  From the "Customize Theme" option, we can change the pattern, the background or the image of the questionnaire by choosing from a range of colors or topics sorted into categories or by uploading and using our own image.
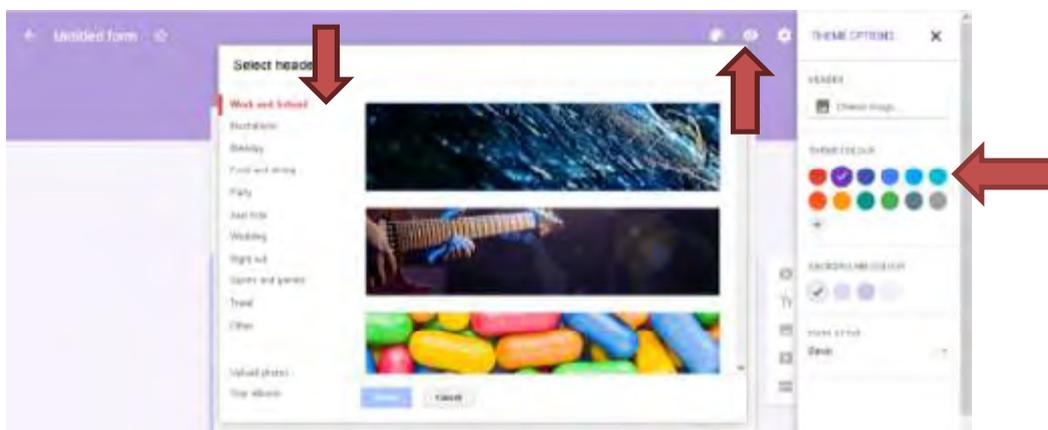


When we complete the form/questionnaire, we can share it from "Add Collaborators" option by giving editing, commenting, or reading rights. In the first case (editing), we have collaborative processing and formatting of the form, following the way and utilizing the capabilities that described for the documents.
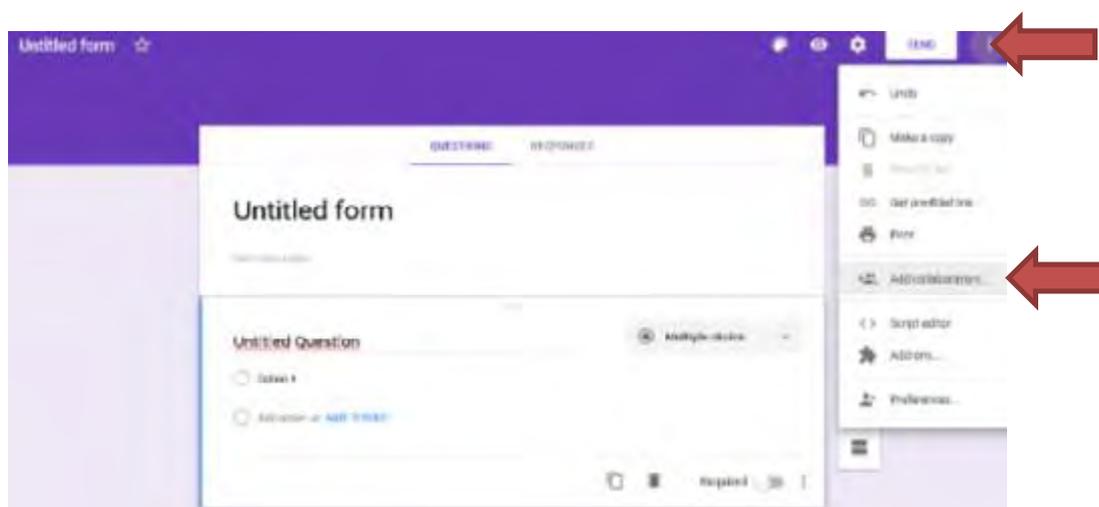
After the answers' entry process has been completed, the results are available in an Excel document format and in a graphic representation either as for all the responders a whole or individually on the "Responses" tab.
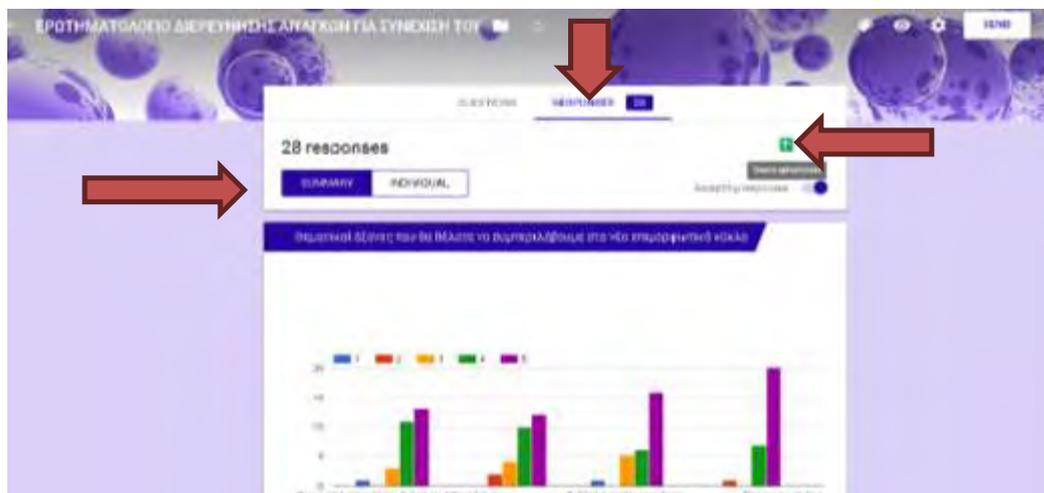


The results available in a spreadsheet form can be retrieved from the "Create Spreadsheet" option.

### 2.2.4.1.5 Reviews' history monitoring

Useful for the collaborative process is the ability for partners to see the activity history on a shared document or folder. This way they can watch the time and know who has made changes in the document.
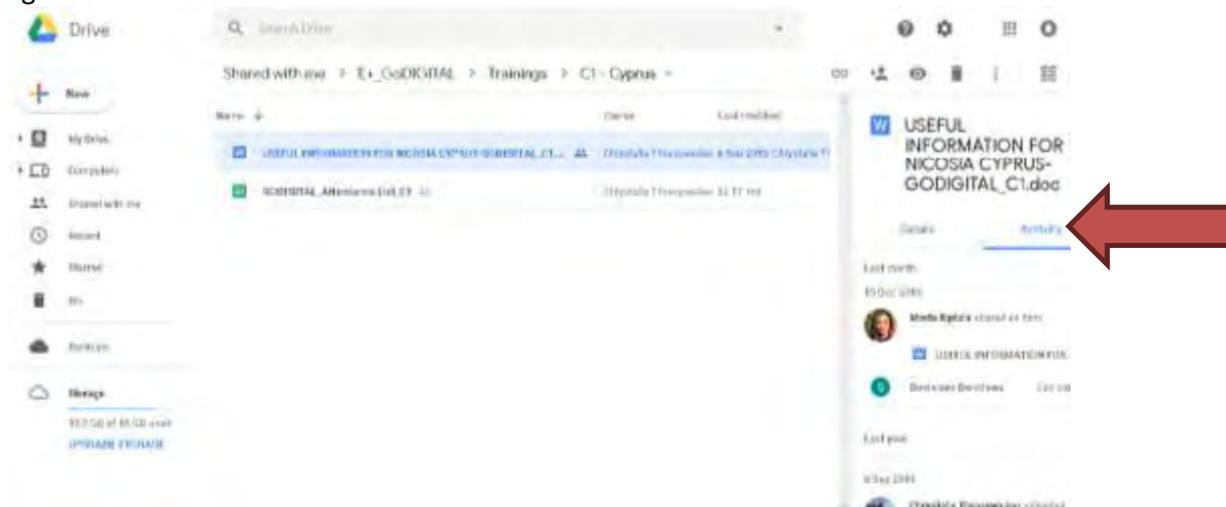


How can we see Google Drive History (past activity)?
In our drive we click "My Drive" on the left. Then in the upper right, we click "Info" and then "Activity" to see recent changes. In case we are interested in the activity of a

specific file or folder, we click the file or folder. To see older changes, we simply scroll down on the right side.

### 2.2.4.1.6 Possibilities for pedagogical uses of Google Drive

Given the emphasis of current teaching practices on teamwork and cooperative teaching, which are also proposed by socio-cultural theories, the cooperation of pupils is encouraged today, with the help, the mobilization and the encouragement of the teacher, and the ultimate goal of building and eventually acquiring knowledge (Kahrimanis, 2016). The opportunities given by the widespread use of new technologies is likely to "offer cooperative learning opportunities between instructors and learners and/or among learners" while at the same time providing them with "more opportunities for improving problem solving capabilities, enhancing high order thinking skills, and achieving learning effectiveness" (Sifakis, 2010, 12-13).

More specifically, the educational use of Google Drive enables students and teachers to work collaboratively, synchronously or asynchronously, by creating or editing any file together. They can also access their apps and data at anytime from anywhere without any restrictions on place and time.

Among the greatest advantages for the learning process are: the possibility to collaborate in real time or asynchronously where an unlimited number of people can work together, the ability to check the editions that have been made in a file by viewing full historical revisions, the possibility to exchange comments by group chat or annotation through "stickers" notes, the sharing of images and templates, the opportunity of teachers to intervene, etc.

More specifically. Indicatively:

- Teachers can use the documents to cooperate on collaborative writing and make notes, while students can write and modify assignments either individually or in collaborative groups.
- Teachers can create data tables and graphs in spreadsheets. They can also use the spreadsheet capabilities individually or in collaboration, even as a rating tool. Students have the opportunity to use them as a visualization tool for research results through graphs, e.t.c.
- Forms can be used by teachers as a tool to research, explore topics concerning students or parents, create feedback, and evaluation quizzes, while students can use them as a tool for conducting small surveys in some projects that usually require collaborative processes.

More ideas and applications can be found in the additional literature proposed.