



# The use of tablet devices and Google Drive service in teaching in the case of information technology high school - ITHS

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**Abstract:** *Within this work is emphasized the importance of the form of communication between teachers and students, the transmission of information, data, exchange of materials in the modern educational process and gives a brief description of the application Google Drive service using a tablet as a teaching tool in the Information Technology High School - ITHS. It is the school that fully supports the new modern information - communication technologies (ICT) that are used in the modern educational process.*

**Keywords:** *Education, tablet device, Google Drive, ICT, learner – centered paradigm*

## 1. INTRODUCTION

In the High School of Information Technology (ITHS), as well as contribute to the improvement of teaching, motivating students, raising the quality of teaching and learning in the process of realization of regular classes in their daily work with students are used tablet devices. New didactic - given to organize technical resources, which are based on the use of tablets in the classroom, allows classes to be designed as an integrated cognitive system that feedback is monitored through every step of the student's activities.

The processes of scientific - technical revolution with all the rapid application of scientific knowledge, in practice, trying to improve the way we communicate in teaching using modern communication tools such as tablet devices [1].

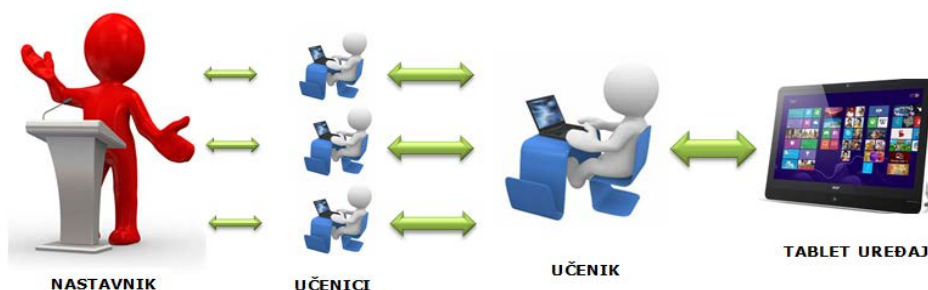
In ITHS in tablets and Google Drive service are the modern communication tools and technologies aimed achieving interactive communication between students, students and teachers, and between teachers and professional associates, regardless of their physical location, and with the use of infrastructure and resources of the Internet.

## 2. A NEW EDUCATIONAL PARADIGM BY USING TABLET DEVICE

The role of teachers in traditional teaching is mainly confined to lectures (disclosure of information), and the occasional control of students' knowledge, although it should be permanent and far richer and more diverse. In this system, the teacher was the main subject of the teaching process, and the student belonged to the object-function.

The teacher should indicate students how to learn, how to be independent, to advise them and helps to the faster progress, that enables them to self-education and lifelong learning.

The new educational paradigm is oriented towards students (eng. Learner - centered paradigm). The student is "stored" in the center, while in the environment are learning resources both in terms of time and place and ways of learning. Furthermore, the student is all oriented - and everything is covered by an original resource, tablet device and an Internet connection.



**Figure 1.** Modern teaching methods with the use of tablet device

All you need to organize such a process of communication between teachers and students are: mail, stable, reliable and fast WiFi connection and tablet.

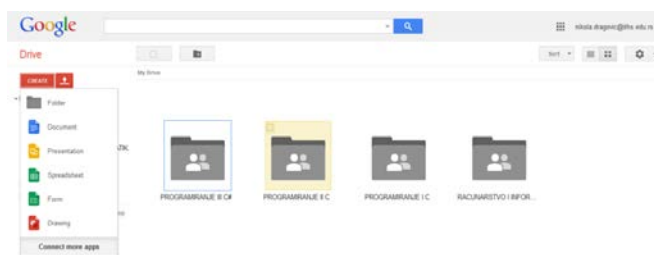
### 3. THE USE OF GOOGLE DRIVE SERVICE IN TEACHING

The tablet itself is not sufficient unless there are adequate resources for learning that could be used on it. The Internet is a rich variety of learning resources, but they are not always suitable or adapted curricula and / or age of the students.

The best solution is that a teacher puts the teaching material at one "place" that students can see and, if necessary, they can update it too. Such possibilities are provided by Google Drive service. Google Drive is a user friendly suite of online collaborative tools that come with tremendous potential for use in the classroom. [3]

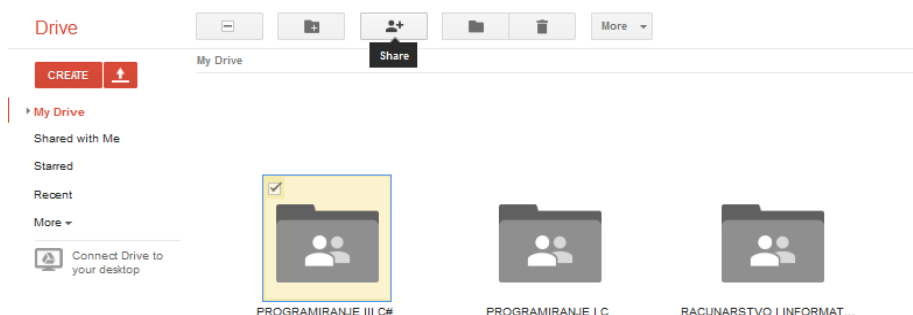
#### 3.1. The process of organizing and creating work environment

Every teacher creates folder for the subject that he teaches, picture 2. After creating a new folder using the Create option opens a dialog box New Folder where you can enter a folder name, or the name of the Subject which the folder is created for. When you create a new folder, access to his sharing Share. The process of sharing is extremely simple. Select the folder that should be granted to students who study the subjects and then click on the icon Share, which confirm the award.



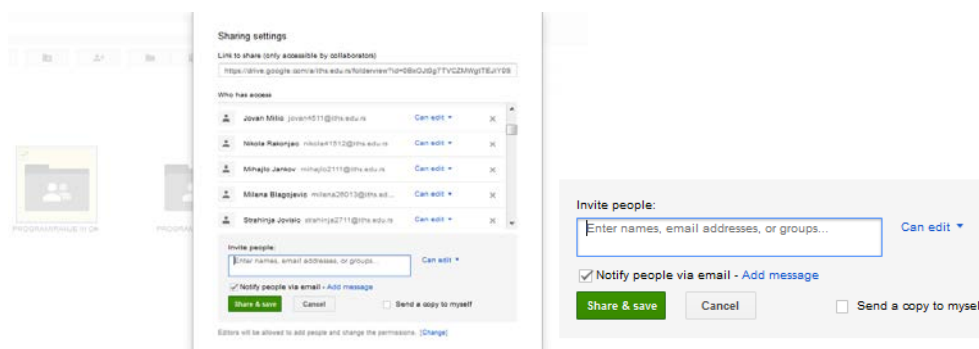
**Figure 2.** Create a new folder within the Google Drive service

When you create a new folder, access to his sharing Share. The process of sharing is extremely simple. Select the folder that should be granted to students who study the subjects and then click on the icon Share, which confirm the award, Figure 3.



**Figure 3.** *Sharing a folder with students*

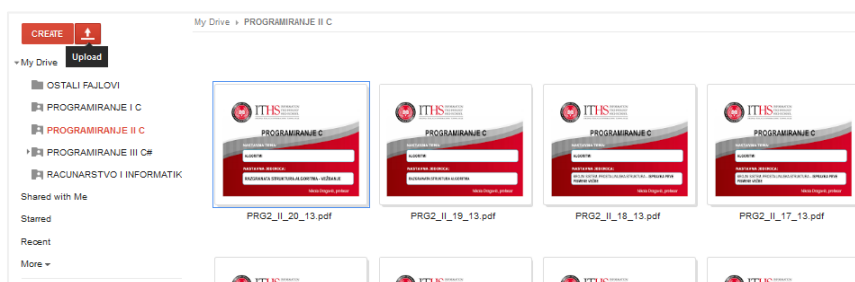
The next step is the introduction of mail address to the students who want to assign designated folder. Mail addresses are entered in the dialog box Sharing settings in the field Invite people, and then click Share & Save, Picture 4.



**Figure 4.** *Entering mail address assignment folder.*

When sharing you can limit access and there are three options that can be changed for each student individually. The highest rights which involve modifying, deleting or adding some content is included the option Can Edit. If you do not want students to change the content, only to see it chooses the option Can View .

The next step is the Upload of material. In order to make Upload material within shared folder , first you must designate a folder in order to know in which folder is to be executed Upload. Then click on icon Upload. Figure 5.



**Figure 5.** *Uploading of material which is opened by click*

Of course that any file or material which is meant to be upload can limit the right of access of edit options, through comment to view. What is important to note is that you can see all the changes that have been made, from the email address of the person and the changes made to the date and time when they were done. You can view a complete history of all changes and, if necessary, go back to a previous version.

### 3.2. Advantages of using Google drive

The presented method of communication and exchange of materials for teachers and students primarily helps organizations part of the teachers as well as the availability of teaching materials to students, more interactive and more organized lecture.

As all students ITHS bring tablets to the classes, they have the opportunity to approach to previously set materials (previous lessons) and review lessons in the case they forget somehow. Of course, a teacher can while renewing contents taught request students to open a file with the earlier lessons.

It is possible to demand from students that they add new materials in the form of some presentations, documents or that more students create a document (a form of team work). In other words, collaborative and interactive learning is greatly facilitated by using the said service.

The great advantage of the mentioned service is that teaching materials are available to students and the teacher at any time, and any place, it is only necessary to have a wireless connection to a computer or any other mobile device.

This lets you access your work from anywhere—mobile devices as well as other computers. It also means you can work collaboratively on the same document at the same time. [4]

#### **Google Drive service consist many other tools:**

- Google Docs – for work on reports, research or papers together with peers in different classes, schools, or countries [5]
- Google Sheet – for collect data from across the web for research [5]
- Google Slides – for creating presentations
- Google Forms – for creating different questionnaires ( student group welcome forms or club event requests)
- Google Drawings – for drawing different shapes
- Google My Maps, ...

#### **4. EXAMPLES OF GOOD PRACTICE ON ITHS**

New didactic – technical teaching method requires equipment that supports the High School of Information Technology. First, it is necessary to ensure fast and reliable internet connection - WiFi, to provide each student a tablet device and open the mail.

The next step is logging students on tablet with mail address they got from the school, installation Drive applications and download other applications that are used in teaching. As a tools of communication and source of all the information necessary for successful learning and mastering, tablet combined with Google Drive service, provides a range of options.

In the context of educational work ITHS tablets and Google Drive service daily benefits from the start of the school year 2012/2013. year. In ITHS every teacher every teacher is required to make a presentation for his subject, and for each lesson , in the form of PowerPoint material. Presentation must include the teaching topics, teaching unit, serial number and date of the time, introduction, main part of the class, and concluding observations.

As a major part, in a creative and interactive way in the presentation is stored material intended for students to cope with a lesson which the presentation was made for.

The conclusion presents a brief overview of the distance traveled material, key issues of teaching units, setting homework, announcing the organization of work the next time.

After the class, every teacher is obliged to share material in the form of presentations with all students who have completed the educational unit. The teacher is allowed for that just through created folder on Google Drive service, which is assigned to students who attend the lesson.

The most important thing is that this way of teaching organization puts students at the center of the educational process, makes him active and include him in the work on time and from home. Students use the tablets as workbooks - for work on time, homework or labs, and as online volume which can be accessed by teachers and leave comments and / or evaluate students (electronic notebooks). This system of knowledge transfer is much more advanced and efficient than the traditional, as it is much easier to attract and retain the attention of students, motivate them to work and to engage in a lecture

This system of work allows them to make the learning process more interactive, dynamic learning is free, place and time are completely left to the choice of the student. Professors provide that immediately after the class set online presentations relating to the processed content, so their students can access at any time with the help of tablets.

Generally speaking, the positive experiences of professors and students ITHS have implied that the Google Drive service and tablet devices are used every day in class with continuous assessment of their new opportunities.

#### **5. CONCLUSION**

The education systems are increasingly turning to modern technologies, lead to the use of touch screen technology and tablet PCs, which allows easy manipulation of the Google Drive service.

New didactic - technical system, which is based on the use of tablets and Google Drive, allows classes to be designed as an integrated cognitive system, feedback monitors every step of the activities of students and achieves better interactivity and engagement of students and teachers.

The social aspect in group education is especially important because the communication affects the motivation of students, as well as a greater sense of security and satisfaction when participating students in combined forms and methods of work in class.

The great advantage of the mentioned service is that the teaching materials are available to students and the teacher at any time and at any place, it is only necessary to have a wireless connection to a computer or any other mobile device

ITHS, as a school that deals with the education of high school students exactly in the domain of IT, seeks to improve the processes of interaction between students and teachers, and between students using modern didactic tools as an aid in the overall educational process.

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