

The Effect of Computers on Education in Greece — The Use of the Internet Safely

Vasiliki Michalogianni

(5th Primary School of Grevena, Greece)

Abstract: Nowadays, digital knowledge and familiarity with electronic information sources and modern internet technologies is considered a necessary skill.

In the present work, we prove that technological means and internet technologies should be used in the educational process with a purely auxiliary role.

Brief presentation of activity-scenario:

- Title of didactic script-activity-Class to which it is addressed-Cognitive areas involved;
- Prerequisite knowledge-pre-existing perceptions of students — Duration-Organization of teaching;
- The software which will be used — Aimed learning outcomes — teaching objectives, regarding the use of new technologies and the learning process;
- Additional information — Conclusions scenario — activity description-Presentation of activities with worksheets-suggested activities

Technology brings benefits to education, but only if security and protection against attacks is guaranteed in order to prevent the disclosure of personal and other sensitive data on the Internet.

Key words: internet, security, script teaching, training platforms, new technologies, software

1. Introduction

Nowadays, digital knowledge and familiarity with electronic information sources and modern internet technologies is considered a necessary skill. The abilities of internet technologies are becoming more and more necessary.

Technology brings benefits to education, but only if there is security and protection against attacks to prevent the disclosure of personal and other sensitive data on the Internet.

2. Internet Technologies and Education

Internet technologies are associated with the study, design, development and implementation of computer and technological systems, which contribute to human communication, while they are also used in the field of education. Initially, they were used more in secondary and tertiary education, while now they are also applied in primary

Vasiliki Michalogianni, MEd, 5th Primary School of Grevena; research areas: Greek language linguistics pedagogy, new technologies in education, literature, special education in education, and administration in education. E-mail: b.michalogianni@gmail.com.

education (Dimitriadis & Maniadakis, 2006).

In the modern school, the teacher must teach and help his students assimilate techniques which will enable them to acquire knowledge and develop skills and abilities at any age and in various fields.

students should use internet technologies to gather and evaluate the information required and store it according to the topic of the activity they have chosen to do. Additionally, we must process them effectively and use them on an autonomous initiative and in a free way, guided by the teacher (Dimitropoulos, 2006).

In addition, new technologies must be utilized for better communication of the learners, because they promote communication, dialogue and exchange of views between students. It is worth noting that based on studies, the application of technological means and specifically, the computer is an important tool in the educational process of people with learning disabilities (Barakos, 2008).

Recently, mobile learning has developed enough to evolve into numerous curricula that apply to schools, especially in higher education. Each project proves that mobile technology is able to offer new learning opportunities which can then be extended within and beyond the narrow confines of the traditional classroom teaching (De la Pena-Bandalara, 2007; Valk et al., 2010).

The first attempts in Greece regarding the integration of new technologies in education have started with the new “Curriculum for which there are great efforts in order to form a complete and coherent framework for the education of students in ICT, from Primary to Junior High School”. The student-centered approach has twofold importance because, on the one hand, it focuses on each student individually, that is on his/her interests, inclinations, knowledge, experiences and abilities, and on the other hand, it combines all those practices to motivate the student to learn (McCombs & Vakili, 2005).

The Pan-Hellenic school intranet provides distance education platforms, communication with the Greek community of students but also with the European communities, seminars and additional education. Moreover, there are the websites and blogs of the schools which have been created by teachers and students in order to present their research work along with all the other activities of the students and their schools.

It should not take on dimensions of dominance and excessive addiction in general, technological tools and internet technologies should be used as tools and their role should be purely supportive in the education (Tsoulis, 2012).

3. Brief Presentation of Activity-Scenario

3.1 Title of Didactic Script: Activity

Knowing Alexander the Great (History)

Class to which it is addressed

D of elementary school

Cognitive areas involved

Language (involved in all activities of comprehension and production of speech and mainly in the processing of crossword puzzle), History (involved as the main source of information on the chosen topic), Geography (basic auxiliary tool for the mental representation of events), Visual Arts (for visualization activities or for understanding a visualization), Informatics (basic word processing and navigation skills), Environmental study (provides information about people's culture and diversity).

-Brief presentation of activity-scenario

-Duration

8 teaching hours

-Organization of teaching

For the implementation of the scenario, the students are divided into four groups of three students and one with two students.

The hardware required is a computer and a video projector. Of course, it would be best to teach in the computer lab and have a computer for every pair of students.

The software which will be used is the following:

- The Internet with the use of internet browsers.
- Presentation software (PowerPoint).
- Software for creating interactive tests (Hot Potatoes)
- Visualization and simulation program (Google Earth & Google Maps)
- Revelation Natural Art

Prerequisite knowledge — pre-existing perceptions of students

- Regarding ICT, it is essential that students can search for information on the Internet and have a first contact and familiarity with the software mentioned above.
- The reasons that contributed to the Macedonians gaining power.
- The situation in which the other city-states had fallen after the exhausting wars they waged among them.
- It is essential that students know: The Persian wars

The teacher organizes, regulates, guides and coordinates the lessons and he/she is the helper and animator of the students. He divides the students into groups, because in each group there must be a trainee who has computer skills.

-Aimed learning outcomes - teaching objectives as for the subject matter:

To get to know the personality of Alexander the Great, to evaluate the actions he made, to prepare his campaign, to get acquainted with the organizational work of Alexander the Great and his plans, to get acquainted with the most important war events and the course of his campaign and to evaluate the reasons why the victories of the Greeks were due.

Regarding the learning process

Students will work in groups. So, they need to develop a spirit of cooperation, and communicational and exploratory learning skills. Theoretically, the scenario is based on the exploratory and constructive approach to knowledge, according to the views of Piaget, Bruner and Vygotsky. The educational atmosphere changes for the benefit of the students and the role of the teacher evolves into that of the facilitator and mediator of the teaching process.

Regarding the use of new technologies

- To develop a positive attitude towards the PC as a digital work tool.
- To learn how to use the computer as a tool for extracting and processing information.

3.2 Scenario-Activity Description

1st teaching hour

The teacher gives the following worksheet to all his students. In this way, he ascertains the pre-existing knowledge that the students of the class have.

Worksheets

Do you recognize this person? Which was his origin?

Which elements of his character made him carry out his plans? Which was his job?

After completing their work in groups, students announce their results.

Then, addressing the whole class, the teacher suggests that all students watch a video from the internet at the following address: <https://www.youtube.com/watch?v=mTK3H1-t1RA>.

A student comes to the main computer and gives the above address and all the students watch the following video: <http://www.youtube.com/watch?v=gJm2zAeVTfY>.

At the instigation of the teacher, the students open the textbook and complete their knowledge. Students are then encouraged to search, in groups, for other videos related to the lesson by giving keywords. Finally, the addresses of the videos are written in a word processor (Word) for students to use in the next lesson.

2nd teaching hour

In the second lesson, students refer to the following internet address: <http://www.youtube.com/watch?v=gJm2zAeVTfY> and watch the video that is completely related to the content of the lesson.

Moreover, the teacher gives additional information that he deems necessary for the students to obtain a clear and complete picture.

The teacher then asks all students to think and find adjectives or phrases with which they can characterize Alexander the Great according to what they saw or read and be able to justify their characterization. The students are given the appropriate information about the concept map and then the teacher shows the students how to make this concept map with the help of Inspiration.

3rd teaching hour

For the third lesson, the students choose the following address: <http://www.youtube.com/watch?v=pAE4MrYGUgI&NR=1> from the Internet and they watch the documentary whose content is fully compatible with the subject to be taught. The teacher then urges the students to refer to the textbook to supplement their knowledge and is always willing to give any clarification to the students.

The results are announced by the teams and any mistakes are corrected.

The teacher then invites the students to find the path followed by Alexander the Great, by using the Google Earth program.

A student from each group will come to the computer and note each place in turn and at the same time, he/she will take some notes about the events that took place.

4th and 5th teaching hour

For the fourth and fifth lesson, the teacher has prepared a semi-structured concept map which is given to the students to complete in groups. The semi-structured concept map is given to the students, who will work in groups.

Then, the children open the textbook and comment on the pictures from the museum of Vergina in Imathia and the museum of Pella in Greece, which they visited last year in the third grade.

6th teaching hour

In the 6th lesson, the teacher in order to make crossword puzzles which are given to the groups to solve. Optionally, the whole class solves a puzzle so that the students can taste the joy of solving a crossword puzzle with the help of this software.

7th and 8th teaching hour

In the 7th and 8th teaching hours, the class works together to create a PowerPoint with the positive and negative results of Alexander the Great's campaign.

Then, in the Revelation Natural Art, which the teacher has installed on the computer, the students are asked to draw and color the Vergina sun. This is an enjoyable and creative activity for the children.

Final Evaluation of the Scenario

Indicators — criteria of this evaluation are: the completed worksheets of the groups; the rest of the students' projects; the interactive discussion in the classroom; the Evaluation Sheet which the students fill in.

The evaluation concerns the following areas: a) degree of achievement of the initial goals and objectives; b) degree of students' familiarity with the use of ICT; c) operation of the groups on the basis of the collaborative method, but also the collaborative spirit of teaching, that is the satisfaction of the students with the way of working during the scenario and with the final result.

3.3 Additional Information-Script Results

Based on the evaluation, the intervention-teaching is considered undeniably successful. The students accepted the new teaching proposal with great enthusiasm. Even students who did not have a lively participation in other classes participated in this activity. They were looking forward to the next lesson. It is worth noting that many students were very good at computers and some of them were familiar with some of the software used, such as Inspiration.

The children got to know the personality of Alexander the Great. They evaluated the actions he made to prepare his campaign. They got acquainted with the most important war events and the course of his campaign. They evaluated the reasons to which the victories of the Greeks were due. They learned how to work together and exchange views in order to reach common conclusions.. They developed respect for different views.

The average student got a lot of benefits, and the genius was not limited to the specific curriculum, nor did they have to follow a slow pace for the sake of some other students. New roads were opened to children with special needs.

4. Social Networking

Social networking functions as a form of entertainment, information, communication and socialization, by establishing friendly interpersonal and professional relationships, while its use has been extended to education (LeNoue et al., 2011).

Popular tools such as Facebook, YouTube and Google, with internet access, provide the ability for unlimited information mining and content sharing which is relevant to current needs. Sometimes, the group may start as an open team so that students are not required to be friends with each other, but after the members are completed, it can be turned into a closed team to ensure that there will be no random visitors unrelated to the lesson (Wang et al., 2012).

5. Security and Internet

Technology brings benefits to education, but only if security and protection against attacks is guaranteed in order to prevent the disclosure of personal and other sensitive data on the Internet.

If the safety principles are not applied faithfully, serious consequences can occur. The protection of personal data is a critical issue in the age of the Internet, so users need to be very careful about both the data they want to publish and the platforms they use for their social networking (Papazois, 2019).

6. Social Networking – COVID-19

In general, it is worth noting that the use of social media has become particularly noticeable recently, due to the pandemic crisis. The schools implemented distance education through synchronous and asynchronous platforms and some educational institutions, promoted social networking tools in order to deliver the courses. The pandemic has enabled some social networking platforms to become an application tool for educational purposes, since distance education is required to avoid contact problems among people.

7. Conclusions

The integration of new technologies in education is now a reality. The degree of acceptance of this reality by the teachers and their readiness to be involved in its implementation processes proves to be crucial for its successful application. The acceleration of the integration rate of the new information and communication technologies in the educational process and the avoidance and combating of the stress caused by the use of ICT can be done by strengthening and improving the quality of training the teaching staff and by the gradual adaptation and restructuring of the curriculum starting from the first levels of education.

In any case, the protection of users plays an important role, so that they can take advantage of the Internet in a safe way.

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