

INTERACTIVE BOOKS FOR PRIMARY AND SECONDARY EDUCATION FOR THE COURSE OF RELIGION IN GREECE

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ABSTRACT

The Greek Ministry of Education has initiated the project “Digital School” since September 2011. One of the actions of the Digital School concerns the development of digital interactive books (in html) for all school courses. These interactive books are enriched with digital components with activities which are embedded in them. The Course Management System ‘eClass’ was selected as the platform to support the project and to provide the place for communication and collaboration among the teachers participating in the project. It is supported that teaching with such interactive books offers some advantages such as offering to the students more opportunities for engaging and interacting with the books content, multiple representations of the content information, which are expected to result to the better imprint in the students’ memory. We envisage that this kind of interaction with the content of the books of Religion will create favorable conditions for the teaching approach of the course of Religion and it will be an initiative for renewal of its teaching strategies.

KEYWORDS

Interactive book, education, religious education, interactive components

1. INTRODUCTION

The Greek Ministry of Education since September 2011, has initiated the project “Digital School”. (<http://digitalschool.minedu.gov.gr/>) One of the actions of the project concerns the design and development of digital interactive books. The interactive books consist an additional form of the e-books already uploaded on the e-platform of the greek ministry of education and can contribute to the better exploitation of the interactive boards in the classrooms. The interactive books are in html format, and on them are embedded various digital components with activities e.g. Interactive maps, crosswords, quizzes, concept maps, interactive exercises, power point presentations, links to wikipedia, dictionaries and other similar sources etc. The digital components appear as small pictures on the interactive book. When the cursor is moved on the picture, a pop-up menu opens with all the information of the component (title or kind of the activity (e.g. Concept map). When clicking on it, a window opens with the activity and information about it e.g. Chapter, lesson, title, guidelines of use etc). (Kapaniaris & Papadimitriou, 2012)

2. E-PLATFORM OF THE ‘DIGITAL SCHOOL’

As place for the actions of the project “Digital School” was selected the Course Management System ‘eClass’ (digitalschool.minedu.gov.gr). It is used as platform where there are uploaded the digital schoolbooks (already in pdf and gradually in html format) of all courses and it provides a common space for communication and collaboration of the teachers working on the design and development of the digital components. The html format of the books will render easier on one hand their enrichment with the digital components (interactive maps, digital map etc) and thus their change into interactive.

Among the aims of this project are: (a) to provide the greek students the possibility to have access to the digital and interactive schoolbooks from their homes, at their free time, so that they will be able to practice with the activities at their own pace and time (b) to provide the teachers the possibility to have immediate access to a great variety of teaching material so as to be able to use it for teaching with interactive whiteboard but also to enrich and upgrade their teaching approach. (Mitropoulou, 2011)

'eClass' Course Management System is used to facilitate the communication and collaboration among the teachers working on the development of the interactive books. There are 10 teacher-teams working on the following courses: Modern Greek Language, Physics, English, Informatics, Mathematics, French, Music, Chemistry, Geography and Religion. The field of the platform used for this purpose is called "Synergazomai-Symmetexo" (Collaborate-Participate) (<http://synergasia.minedu.gov.gr/>) and provides to all teams a place to communicate, upload and store the components/activities they design and develop. Then the components are incorporated as links on the html schoolbook, which, finally, is uploaded on the platform of the Digital school.

3. THE INTERACTIVE E-BOOKS FOR THE COURSE OF RELIGION

All the schoolbooks for Religion both for Primary and Secondary Education are already uploaded on the eClass platform of the Digital School. Up-to-day, those which have been enriched are the books for Secondary Education (High School: 1st, 2nd, 3rd grades, and Upper High School [Lykeion]: 1st, 2nd grade). The team has just finished the enrichment of the book of 6th grade of Primary school and is currently working on the books of 3rd, 4th, 5th grade.

On the eClass platform are also uploaded the aims and targets of each course per grade and per subject, as they are published in the national state Curricula (Government Paper, 2003: 303/13.03.2003, v. B' & Government Paper, 1998: 406/05.05.1998, v. B') as well as the Teacher's Book for each course.

Religion is an obligatory course in the greek educational system taught at both Primary (4 out of 6 classes) and Secondary Education (3 years High School and 3 years upper high school [Lykeion]). Its content contains information on history, practice, art, on religions and their role as way and expression of life (Christianity (mainly) and references to other religions e.g. Islam, Judaism, Buddhism, Hinduism etc).

The interactive components/applets developed and embedded on the interactive books of Religion have a great variety in their formats and interactivity. More specifically, there are: (a) introductory presentations (presenting the basic points of the lesson (written and orally) (b) interactive maps and pictures (c) photo galleries, (d) videos, (e) links with Wikipedia, (f) links with a greek online Dictionary, (g) activities for consolidation, practice and/or feedback (quizzes, crosswords, puzzles), (h) music and songs (i) comics in books.

For the development of the interactive activities for the course of Religion were used the following software programs: Articulate Studio 2009, Pro Adobe Flash Pro CS5, Wondershare, QuizCreator 4.1.0, Audacity, Colagedit, ispring free, Eclipse Crossword, Hot potatoes, Acrobat Reader, Comic lab.

4. PEDAGOGICAL AND TEACHING APPROACH OF THE INTERACTIVE E-BOOKS FOR THE COURSE OF RELIGION

The interactive schoolbook can be used in the teaching of the course of Religion with interactive whiteboard. The teaching of Religion course in schools is delivered till today in the traditional way, teaching in groups, accompanied with a power-point presentation prepared just for the purposes of the specific lesson. Occasionally, when the teacher is more familiar with computers, he may use educational software. Usually, though ICT is used in the teaching, just as visual medium without activating the students, because they still sit and watch and not participate actively. This is important in the course of Religion because it is a course based on experiences from life and the above described way of teaching does not exploit the possibilities of the computer in this direction. Also it does not help the students realize the interdisciplinarity of the course of Religion with other courses (e.g. History, Geography, Visual Arts). Among the advantages of teaching with such interactive books is the possibility offered to the student to participate actively during the lesson and make correlations and creative comparisons with either other lessons or other courses thus supporting the

interdisciplinary learning approach (Mitropoulou, 2011). The content uploaded on the interactive books of Religion is expected to offer multiple representations of the various information, which is envisaged to result to their better imprint in the students' memory, as «the information is presented in a more attractive, direct, pleasant and comprehensible way» through interactive pictures, interactive maps, comics, applets etc.

The introductory presentation created with Articulate software is a presentation with the main points of each lesson of the book (duration 3-5 min). The student can both see these points in text and listen (or not listen if he does not want) them at the same time. When possible, the text is accompanied by a relevant picture. The introductory presentation can be used by the teacher to introduce the lesson to the students (presenting the new information so that the students will use it as a base to construct their new knowledge) or for review at the end of the lesson (review or feedback, and consolidation of the information learnt) or before the next lesson to help the students recall in their memory relevant information and connect them with the new information that they will be taught, thus facilitating the assimilation and adjustment. The students on their part can review the main points of the lesson at their own place and time.

The photo galleries present different views of a theme, e.g. photos of Mt Thavor or river Jordan, or icons of Transfiguration or Buddha. The photo-galleries developed for the interactive books, depending on the topic, they use photographs, byzantine icons, paintings of famous painters, etc. The students can select the picture they wish to observe in e.g. a carousel or scattered cards. By clicking on it once they can enlarge it and notice the details of it, e.g. posture or facial expression, and by clicking once again they can read details about it, e.g. if it is a famous painting, the students can get information on its title, artist, date, museum where it is etc. Thus the students can actively practice to observe the paintings and notice e.g. the common elements or persons that there are on them and their posture e.g. in Transfiguration, Jesus is dressed in white clothes and is inside a circle of light, on his right and left there are depicted Moses and prophet Elijah, while at the bottom of the painting there are fallen down his three students Peter, John and Jacob. The students are asked to observe that e.g. in all the paintings, the students are fallen on the ground, Jesus is in white, they are on a mountain (Mt Thavor) etc. This activity responds to the special needs of Religion painting, which are symbolic and therefore not understood. Another component which helps in this direction concerns the interactive icons. The student, when clicking with the mouse on a person of the icon, can get information about him/her e.g. who he is, what is the symbolism, why he is there. With the photo-galleries and the interactive pictures the students can actively see and understand why a theme is depicted in this specific way and which persons participate in this event (e.g. Baptism), or see the parts and objects inside/outside a sacred place (mosque, synagogue, hindu temple). This activity has a direct use for the course of Religion as it is related with its symbols, without which it is not possible to understand e.g. historical or art issues. This kind of activities help the students practice their observation skills and their critical thought, as they are involved actively in creative comparisons e.g. compare the religious symbolisms in the byzantine icons with the same symbolisms in the paintings of famous painters (e.g. El Greco) thus involving in interdisciplinary approach with the Visual Arts Course.

The words which are links to the online modern greek dictionary (http://www.greek-language.gr/greekLang/modern_greek/tools/lexica/triantafyllides/index.html) are keywords, useful to help the students understand the content of the lesson as they also provide the religious meaning of the words, thus aiming to help the students become familiar with it and understand better the content of the lesson. When the students try to solve the crosswords they will need to know about the specific meaning a word has/acquires in the religious context. Because a word or phrase matching exercise like those in a crossword “represent the new knowledge with words, which –according to Bruner- consist ‘abstract symbol systems’ (symbolic representation of knowledge)”. (Samara, 2011, Mitropoulou, 2012) Additional information they can get from the links provided to the greek Wikipedia.

The interactive maps can help the students gain consciousness of the time and place the event occurred (e.g. Exodus) and be able to realize the geographic location today (in the photo gallery they can even see how that place looks today e.g. desert of Sina). Also by clicking with the mouse on a world map they can see e.g. the countries (and their flags) where the death penalty is still applied). This is very important for the course of Religion, especially when it concerns historical events or issues (e.g. Edict of Milan, world map of religions today) as the students will realize that the historical events they are taught about are not fictitious and they do not concern a remote past but they are related with present situation (e.g. Israel). The students with Google earth can visit the cities e.g. that St. Paul visited during his journeys or the area that St Basil lived on a present map (from Google maps). It is envisaged that they will connect the time he lived with the present condition and gain consciousness of the time with a timeline cursor.

Finally, the quiz exercises, which are located at the end of the lesson, contain various behavioristic type exercises (true-false, multiple choice, word completion, correct order, word or phrase matching) that offer the students the possibility of self-evaluation, because the students can either get immediate feedback of their answers, or see again the exercises and the correct answers. Because, the closer the feedback and the correct answer is to the answer given by the student, the better and longer is imprint in the student's memory. At the end of the quiz exercises, there is a final percentage of the correct answers given by the students. This is to provide (a) to the teacher the possibility to check if the students achieved the aim of the lesson and constructed their knowledge, and (b) to the students the chance to check if their new gained knowledge responds to their views up-to-day, thus improving their meta-cognitive abilities.



Figure 1. Introductory presentation, interactive picture, photo gallery, interactive map, quiz

The teacher's role is that of facilitator, guidance to the journey of learning; he provides the students the supplies, shows them the final destination (knowledge) but it is the students that will select how to use the supplies and which way to follow to get there.

5. CONCLUSION

The interactive schoolbook of Religion, enriches their content with multiple ways and offer the students multiple representation of the various information, resulting to their better imprint on the students' memory. Thus, the information is presented in a more attractive, direct, pleasant and understandable way. It is expected that this interactive presentation of the learning content from the e-schoolbooks presents some advantages, e.g. provide the students the possibility to participate actively during the teaching approach and make correlations and comparisons with the content of other lessons of the same or other course thus, supporting the interdisciplinary learning approach. We envisage that this kind of presenting the content of Religion will create favorable conditions for the teaching approach of the course of Religion and it will be an initiative for renewal of its teaching strategies (Mitropoulou, 2008, 2011). We are planning a research in the secondary education schools of Greece to get feedback of the views of the teachers and the students when these interactive books are used during the teaching of the Religion course, the results of which will be presented at another conference next year.

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