

LEARNING BY DOING HISTORY
ELECTRONIC ENVIRONMENT AND HISTORICAL EXPERIENCES
LOCAL HISTORY RESEARCH PROJECT IN HIGHER EDUCATION

Maria Repoussi
Aristotelion University of Thessaloniki
School of Education
Department of Primary Education
Thessaloniki 54006
Tel. (031) 995087
Fax. (031) 995082
Email. Marrep@eled.auth.gr

The progression manifested in computer and information systems educational applications over the last two decades has increasingly motivated the challenge to introduce Information and Communication Technologies (ICT) into the classrooms in order to reorganize teaching and learning strategies and procedures. Evaluation studies on computer-based instruction have supported this motivation by yielding the conclusion of a positive learning record in comparison to the traditional instructional environment (Kulik, 1994). However, despite the sophistication of the ICT on the one hand and the affirmation of their effectiveness on the other, studies note the persistence of the traditional teacher-centered instructional paradigms (Diem, 2000). They also underlined the slow rate of *diffusion*, defined by Rogers (1995, p. 6) "as a kind of social change by which alteration occurs in the structure and function of a social system".

The gap between the potential and the current uses of educational technologies seems, according to researches, wider in the field of social studies, the discipline in which, therefore, Martorella (1997) qualified technology, as a "sleeping giant". Even in the United States, which is a number of years ahead of Europe in its use of technology in education (McCormack, 1999), "fewer than two of every 10 social studies teachers are serious users of computers in their classrooms. Three to four are occasional users. The rest, four to five of every 10 teachers, never use the machines" (Diem, p. 494). Reviews of research examining the kinds of uses and effectiveness of technology on social studies classrooms have concluded that "computers have served the primary function of facilitating students' access to content and have been relegated to being an appendage to traditional classroom materials" (Berson, Shaver in Diem, p. 493). In post-secondary education, in the field of History, the American Association for History and Computing, in 1998, survey of history professors, concerning their computer usage in 1998, gives an 80 percent of the respondents using technology in teaching. A comprehensive look on the data and on the comments of Trinkle (1999) reveals however signs of dissatisfaction as well as doubt for the benefits of learning outcomes.

Reasons for the current effects of new educational technology can be found in abundance in the literature concerning technology and education. The reasons are significant if they are related to each circumstance instructional structure and each discipline. In the field of humanities or social studies and especially in history, the integration of the innovation seems largely depended on the capacity of sublimation new technology in the general purpose of a new learning system, that takes into consideration the new movements in historical education. New educational technology can, then, support, accelerate and multiplies the directions, possibilities and activities within it. The deficit manifested in diffusion of ICT in history classrooms can be explained by the unsuccessful correlation between new educational technology and the broad learning goals as they disciplinary and culturally defined for history. Otherwise, it has to be very clear in which teaching and learning strategies for the humanities, for what purposes and how Information and Communication Technology could contribute to ameliorate or recreate the History learning environment. It is also expected that the ICT curriculum to be revisited and built upon over and over again in order to bear the weight and satisfy the differently by subject structured patterns (Linsell, 1998).

The progression manifested, since the decade of sixties, in learning theories and History education has increasingly changed the way we now conceptualize teaching and learning in history classrooms. One of the more important features of this change was -after the controversies between content and methods,

took place in the beginning of the debate- the enrichment of the concept of historical Knowledge caused by the shift from the monopoly of the *propositional* -Know that- character of historical Knowledge to the *propositional, procedural* -Know how- and *conceptual* one. This means that the knowledge of historical facts, phenomena or whatever else is the outcome of an enquiry which satisfies the appropriate criteria of the discipline and it is related to its conceptual structure (Rogers, 1978). Procedural learning in history means learning the procedures to arrive to conclusions concerning the historical questions about the human past and simultaneously having in mind the parameters determining any conclusion which it is neither unique, nor definite, nor independent of the social representations shared. This depends by the evidences available and the capacity to read, understand, explain, evaluate, and interpret them. A part from the appropriate procedures, different views and value systems interfere in this process of historical explanation. Historical knowledge is also a distinct form of knowledge in which the conceptual capital is continuous with the general human experience that changes through the time. The concepts of the discipline gain their meaning in relation with the distinguished and unrepeatable character of the historical events and they don't permit .the generalizations of the Physics or Mathematics. The enormous power of the machines to generalize, abstract and theorize about huge quantities of information and the concern in History in the individuality of particular people, place and events (Morris & Anderson, 1987) remains, for example, one of the points of tensions manifested in the discipline

This theoretical background, -in brief presented above- linking with the learner-centered turn of the educational theories, determine the general History teaching and learning environment which Information and Communication Technologies can materialize, make effective and much promising for the renovation of the historical education. Four principal aspects illustrate the convenient and fruitful alliance:

1. Learning history deals with the sources that the present dispose from the human past. Historical knowledge and understanding is absolutely depended on them, the questions that each learner - individual or collectivity- poses to them and the genuine methods that transform them from silent pieces to evidences. Text-based instruction and the traditional classroom, even in the context of recognition of this procedure for the construction of the historical knowledge, have structural problems to integrate testimony in a potential way in the learning process (Oren and Chen, 1992). Textbook has limits, the classroom has walls and each learning collectivity has his own questions. On the contrary, electronic environment without these limits and with the possibility to support differentiated questioning for each learner has the limit of an unlimited and uncontrolled space of sources and information. The assessment of this space, the interpretation of these meta-sources and meta-information in his historical context has, in the case of historical education, to depend on history and his methods of external and internal criticism (Boydens 1997). Information Superhighway and electronic environment in the one hand and historical methods in the other could, then, reciprocally balance the structural weaknesses they have for History Education and recreate a new learning environment.
2. The historical information needed to be collected, evaluated, correlated and handled, exists in a variety of forms of evidences, which is judged absolutely necessary for all new history learning strategies, but it is very difficult to be included, in a coherent linked and comprehensive way, in the traditional classroom. Multimedia applications have the technical capacity to integrate different kinds of historical sources, to create a linkage system concerning an historical topic, to create the story. But, the linkage in history is the concern of a difficult relationship dependent on the nature of History and the explanatory and selective process of the historical work. The ambiguous, sometimes controversy records of a past, which has irretrievably taken place, must create a story which makes intelligible the human past. The technical linkage capacity of the electronic environment has consequently to be tied to the explanatory and selective character of the historical explanation, if the aim is to bring closer the linkage capacity, the practice of history and the learning process.
3. The introduction of the enquiry strategies in history teaching and learning, the entrance in the world of historical testimony and interpretation as it is presented in our societies, learning by doing history risks from loosing the target-direction. The vague of the historical past, the richness of records which conserve alive the human activities and the volume of information, the open data of history, pose in the classroom the problem of disorientation and function as a barrier to introduce enquiry strategies in the historical education. The high level capacity of information handling of the machines modified, over and over, in a positive way, the questioning concerning the management of the amount and the

diversity of historical information derived from the new approaches. As it is and has to be critical the way of information handling, in the new electronic environment, new questions concerning the dangers of pre-coding and cognitive modelling are derived. The involvement of the learner in modelling his/her understanding within an electronic environment needs the rules which determine the relationships within a knowledge base (Wild, 1988). The historical knowledge base could form different appropriate criteria for information handling in digital educational technology. Selection of convenient electronic tools could consequently function as an organizational framework for finding the way, handling the information, enhancing the quality and presenting the historical experience of the learner collectivity. Blow (1983) argues that "it is these very limitations on usable information, and the consequential simplification of history by means of historical models, that make the computer so useful for teaching history"

4. History learning, as learning in general, deals with the interaction and conflicts between new information and the prior mental and social cognitive images and representations. It is a reflective generative process best facilitated by active, collaborative forms of pedagogy situated in a learning community and its culture. Historical distinct academic culture, patterns of discourse, ways of conceptualizing the world, public history, collective memory, historical mentality of the wider social community interfere in the learning process, influence the historical understanding and contribute in learning outcomes. Communication technology creates the conditions to open the windows of the classroom and to rethink the notion of historical education in its broad context. Reinhart, Sedore and Lawrence (1995) reported a collaborative project conducted by students at elementary, secondary and college levels into a technological medium invite us to recreate "the one-room school".

The above problematic - as it is tested through the experiences taken by teaching for several years didactics of history in under and post graduated students in education departments and in training courses for teachers in primary schools-, led me to the creation of a laboratory of history, in which one semester every academic year, since 1994, the possibilities of new educational technologies in history teaching and learning environment have been explored. The course, taken place in the framework of this laboratory, is integrated in the curriculum of the Department of Primary Education of Aristotelion University of Thessaloniki and it is addressed to students who have previously followed two courses, the first on didactics of history, the second on new educational technologies. The history topic, in the context of which students organize their enquiry and develop their awareness about computer assisted instruction and historical education, change every two years. This is due to the experimental character of the work and the effort of improving the guiding interventions to achieve better benefits of learning outcomes. During the academic years 1998-1999 and 1999-2000, the project, which will be presented, is a project of local history.

The basis of the project was to research, document and publish the study of the local history of Thessaloniki, - the area in which the university is situated and the students live- in an important period (1870-1930) that great transformations occurred and change the physiognomy of the city. These transformations, dealing especially with:

- the last ottoman period of the area and the effort for modernization the ottoman state that gives to the city a modern European style beside the old ones, modifies the economical structure, affects the professions and accelerates the commercial and production procedures,
- the rise of the nationalism, the Balkans wars, the integration of the area to the Greek national state and the 1st World War that influence the relationship between different ethnic communities and modify the multicultural and multiethnic character of the population,

are arising topics of social and economic history, national histories, history of every day life, multicultural history and are involving methodological historical concepts like causation, continuity and change, and substantive historical concepts like modernization, nationalism, emigration, refugees and culture.

As the department is a department of education preparing the future teachers of primary schools, students were motivated to work in a way that could further be useful for developing local history enquiry projects in primary education. Two key purposes were therefore identified:

- learning history by doing local history and using electronic technologies
- doing local history in a communicable and multipliable for the schools community way

The course starts with the discussion of its schedule and a general discussion about the present physiognomy of the city, the obvious multiplicity of its historical buildings and places and the

interrogation of some local place names. This first discussion reveals main current representations of the students concerning the city, they live and study, puts forward the lack of the propositional knowledge of the students concerning the history of the city and motivates an introduction to the historical times of Thessaloniki. Bibliographical and documentary directions, including electronic resources, and a schema of the evolution of the city were given to the students to help them, situating in the historical time and space in question. In the same session, the first discussion, about the electronic opportunities History teaching and learning has, shows the weaknesses to connect previous knowledge of educational technology with the concrete project purposes and create the necessity to revisit, by examples, the electronic tools disposable for researching, documenting, presenting and publishing the study of the local history, especially database, electronic book, digital mapping, website.

First approaches by the students to the history of the city, following the directions given in the previous session, were used as a basis for organizing the first students' enquiry questions into particular historical topics. A sample of the questions posed and the topics created from them is following:

- Which are the criteria to focus on the period in question?
- Which are the principal trends of change and where are their origins?
- Are the different nationalities, coexisting in the city, socially divided? Professionally separated? Cultural diversified? Are there any similarities between different national groups and in which domains?
- Which is the contribution of ottoman reforms in the every day life of people?
- How nationalism and wars affected the city?
- Which was the use of the historical buildings?

As far the topics concern:

- demographic evolution and ethnocultural aspects
- every day life with emphasis on habits, every day activities, clothing and food
- populations settlements
- education
- great modernization works
- professions
- press
- cultural events

According to the historical subject as the students saw it, their interests and their number, the areas of research, that were nominated, formed eight groups of three or four students. Each group has to decide which electronic tools need to handle the historical information provided by the source analysis and to present his account. The decision has to be related to the area of research, the kind of evidences, the methods of internal and external criticism, the information and concepts included. If, for example, the topic is the demographic evolution of a city, the main concept is "change" and the procedures are quantitative, the exercise is easy for the level of students. Microsoft Excel is a suitable environment to handle the information and present the account. If, opposite, one has to deal with every day life in the late 19th to the early 20th century and the sources are immaterial and material, written and representational, as beliefs and practices, artifacts and buildings, diaries and books, photographs and folksongs, a multimedia environment is prerequisite for the construction of the story. Causation, correlation, continuity and change as the students conceptualize them as they are defined in the examined subject, have to form the linkage system to make the story explanatory.

The selection of the electronic organizational and publishing framework related to the methods of historical explanation needs the propositional, procedural and conceptual historical cognitive context of the subject, context that is expected to be derived by the involvement of the students and the advancement of their enquiry. Each group has therefore, to progress in his subject before selecting the convenient means to present his historical experiences. Meantime, each learner individual has also to renovate his technology literacy to be able to decide for his own work and to have access to the work of the others.

Doing history in a variety of places, both traditional and new, working with oral, written, optical, virtual evidences, students arrive at the decision about the appropriate way to present and communicate their experience. The decision of concrete electronic contexts and tools supports the students to reorganize and structure their work. If, for example, the group, researching the settlements of the population in relation with the parameters of ethnicity, origins, social division and profession, decide to use an educational software of digital mapping, it must take into consideration the possibilities of

manipulation, the software gives, and make its work compatible to them. For a local history program, "site centring", "hot spot" information and comments, zoom facilities are some of the prerequisite possibilities. Some times the choice diminishes the importance and the range of the historical study and restricts the limits of an adequate presentation of the story. Occasionally, the organizational framework chosen functions as a barrier to his exploitation in a teaching and learning strategy. All experiences are, in any case, learning experiences that finally enhance learning. Microsoft Access and Website technologies are often the most favorite electronic environments selected by the students of this project.

At this time, sessions neither have to be only plenary, nor only in the traditional classroom. The new classroom can be created by the ensemble of the historical paths opened by each group in the computer. Plenary sessions in the classroom interfere so as methodological problems be discussed and the project be evaluated in a formative way. The second year of its application, the project team decided to include all material and the stories produced by the students in a website that still remain in a CD ROM, form waiting to be integrated in the electronic publishing of the University.

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