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## Digital Concept Mapping Techniques for Teaching Historical Concepts

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## ■ DIGITAL CONCEPT MAPPING TECHNIQUES FOR TEACHING HISTORICAL CONCEPTS

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### **Abstract**

The development of specific educational software aiming at the construction and the elaboration of concept maps, has increasingly drawn attention to the introduction of concept mapping in class. By evaluating the ability of the students to form, understand and use historical concepts as of decisive importance for the development of historical understanding and thinking, we have planned a teaching model based on the construction of concept maps as cognitive tools for the teaching of History in a digital learning environment.

### **Keywords**

Historical concepts, concept-maps, Inspiration, Internet.

### **INTRODUCTION**

This paper suggests various ways for the planning of a learning environment, when teaching History in class, by utilizing digital technology according to the learning theory of social constructivism. (Jonassen, 1999:51-68). In order to apply the basic principles of social constructivism, a digital environment supporting such learning processes was chosen, which will give the students the opportunity both to conceive and to appreciate the acquired knowledge through dialogue and social interaction (Honebein, 1991:88). To be more specific, the teaching approach of historical concepts is attempted through the use of the software concept mapping 'Inspiration' and the Internet as a source of teaching material, when trying to teach a chapter of History in class.

Our goal is that students: (a) develop skills of understanding and using historical concepts by actively and visually approaching them, (b) place the historical concepts into the defining space-time contexts and understand not only the historicity and the origin of the concepts, but also their semantic differentiation in the course of time or in different ideological-political contexts. An approach of this kind directly refers to the field of the new intellectual history,

which is called history of concepts (*Begriffsgeschichte*) and whose eminent representative is the German historian Reinhart Koselleck, (c)acknowledge the fact that the historical concepts are not separate but closely related, not to mention that they constitute constellations of meanings, notional combinations or disjunctive contrasting meanings, (d)compare their own way of thinking with the others' and develop the capacity of putting themselves in the contrary position and learning to historically see ahead (historical understanding and historical empathy), (e) reconsider possible misunderstandings of historical concepts, which are closely related to their already-existed cognitive knowledge and experience.

### **TEACHING HISTORY AND HISTORICAL CONCEPTS**

According to the findings recently presented by Peter Lee and Rosalyn Ashby, within the scope of expanding the searching programme CHATA (Concepts of History and Teaching Approaches), which is applied to England and Wales and which works upon the procedures of concept tutoring in representative groups of students aged 7 to 14 in the subject of History, the concept learning is expected to refer to the cognitive content (facts, individual and collaborative historical people) as well as to the formation procedures of the historical knowledge (argumentation, explanation, change/continuity, time levels, historical cause etc). To be more specific, Lee and Ashby point out that, in order to activate and to constantly and gradually reform the historical concept learning, the following decisive factors need to be taken into account: (a) the autonomous teaching of the subject and (b) the sensitization and the teaching tutoring of the instructors, so that they will be able to use teaching methods and techniques, whose starting-point will be the mapping and the acknowledgement of the ideological and intellectual nature of the students, while their main goal should be the transition from the practical directness, the experiences and the social-political stereotypes to the disciplinary recording of the historical past. At the same time, Lee and Ashby underline the fact that the concept learning depends, on the one hand, on the stage of the students' intellectual development and, on the other hand, on the special characteristics of teaching, that is to say, the methodological consistency, the learning motivation, the disciplinary and, in general, the cultural capital invested in the everyday teaching. (Lee – Ashby, 2000: 199-122).

### **USING THE 'INSPIRATION' AND THE INTERNET IN CLASS**

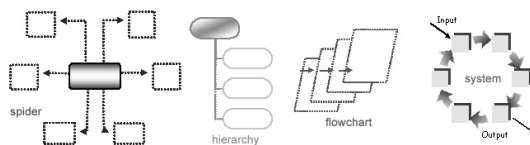
The data base used as teaching material for the specific teaching suggestion mentioned below is included in the web-page of the Hellenic National Center of the Book (E.KE.BI) and has to do with the unit: 'The Fascism and the Nazism in Europe' (Scientific person in charge: George Kokkinos. Hosted at URL: [www.ekebi.gr\Fakeloi\ fascism](http://www.ekebi.gr/Fakeloi/fascism)).The object of the activities presented in this paper is to probe into the extent up to which the students have understood the historical concepts, events and relations included in the historical teaching material. The order of the concepts created by the students, in combination with the key words they filled in, constitute the project which is called 'concept map' and which can give rise to discussions among the students. (see chart 2)

Students are encouraged to construct concept maps based on the following steps:

- 1st step: Choice of the subject: The student focuses on one of the subjects included in the unit and pin-points relevant concepts.
- 2nd step: Schematic order: The student creates the most suitable, in his/her opinion, order of the pin-pointed concepts by organizing the concept system based either on the hierarchical order (from the specific to the abstract, from the ordinary to the complicated etc), either on the grouping-categorization technique (closely related concepts) or on the classification technique (flowchart representation).
- 3rd step: Combination of the concepts and addition of correlatives: The student creates nodes of correlated concepts by choosing the appropriate words to combine them.
- 4th step: Choice of the concept map: The student tries out different kinds of concept maps so as to choose the one which is considered, according to his/her point of view, to represent more suitably the specific order of his/her invented concepts and combinations.
- 5th step: Exchange of views among the students: Each student is requested to argue with regard to the order of concepts and the kind of concept map he/she has chosen in order to construct a series of concepts or to interpret the notional framework of a unique concept.

## KINDS OF CONCEPT MAPS

These concept maps are used in the teaching of History because they can reveal up to which extent, the student has understood a given concept. To sum up, we should point out that the concept maps constitute important mind tools in the teaching of History. Generally speaking, we could say that the main advantage of using a mind tool is the fact that the person using it achieves more by doing less, given that a part of the learning procedure is accomplished by the mind tool itself (Cantu & Warren, 2003:186-188).



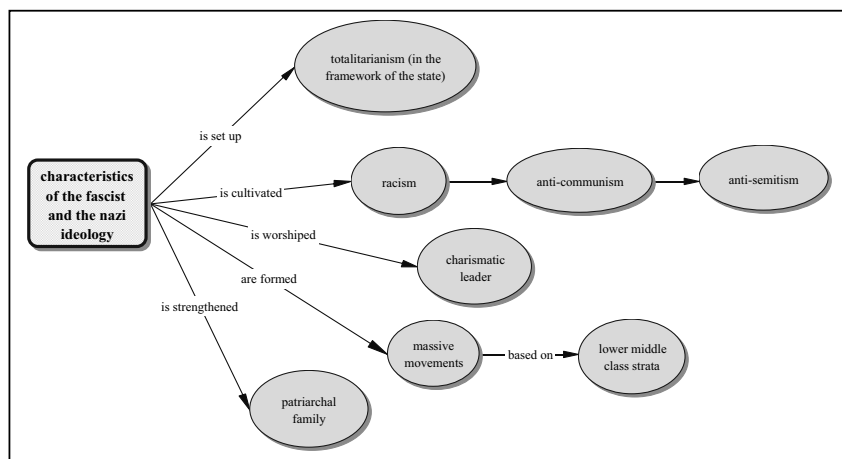
**Chart 1.** kinds of concept maps.

## CONCLUSIONS

The application of concept mapping techniques contributes greatly so that the students can understand that (a) the process of thinking is a ceaseless organization of concepts and that (b) the concepts constitute forms of compressed but still not ideologically and epistemologically neutral knowledge, which play a big part in the recall of other forms of knowledge by producing complicated constellations of ideas.

While trying to define the concepts, the students realize that they need to invoke other concepts, which in their turn provoke associations leading to

various correlations (Jonassen, 1996:293-302). In this way, they achieve the construction of a concept chain, each link of which functions through its relation with the other attached links, without losing its autonomy; as a result, this chain constitutes a whole that reflects the structure of concept thinking. Thanks to the possibilities offered by our language, the concepts (links) form an uninterrupted chain, which includes the whole of our knowledge.



**Chart 2.** concept map “SPIDER”

The student tried to depict the main characteristics of the Fascist and the Nazi ideology.

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