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Curriculum Development in History Using Systems Approach

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Abstract

This work provides a conceptual framework for developing coherent history curricula at university level. It can also be used for evaluating existing curricula in terms of coherence. For this purpose, two models that are closely inter-connected called History Education System (Tarih Eğitim Sistemi or TES) and History Research System (Tarih Araştırma Sistemi or TAS) are developed using systems approach. TES represents the process of history education. TAS represents the historian's craft. Viability of the framework thus created is demonstrated by applying it to the development of a draft history education programs for all levels; undergraduate, master's and doctoral. Core fields for all these programs, courses which differentiate in terms of depth and coverage depending on the level for each one of the core fields; project based learning/teaching and activity log based assessment that can be applied in many of the courses are described in detail. This work is first for the discipline of history. Moreover, TES and TAS are generic models that can easily be adapted to developing curricula in other social science fields. This work differs from other studies involving the systems approach in Turkey in that it models not only learning/teaching process but also the field of teaching/learning itself, that is history.

Key Words

History Education, Historiography, Systems Approach, Curriculum Development in History.

There are two main approaches to developing a curriculum: the product approach proposed by Ralph Tyler (1949) and the process approach usually associated with Lawrence Stenhouse (1975). The systems approach, which originates from the computer systems, is emerging as a third main approach due to, perhaps, the spread of computer systems in all facets of life. According to this approach, in simple terms, inputs are transformed into outputs to the environment through a process. Outputs to the environment may enter into the system again through a feedback mechanism. Curriculum development studies based on the systems approach follows closely the model proposed by Wulf and Schave (1984).

The experts in the area of curriculum development in Turkey can be said to be under the influence of product approach (Demirel, 1992, p. 35). But there are also studies, although too few in numbers, concerning the systems approach. Varış (1989) reviews the history of curriculum development and introduces the basic concepts regarding the systems approach. Doğan (1974) explains the stages of curriculum development using this approach, through examples from technical education. Şahinkesen (1990) after a short description of basic concepts of the approach explains and expands on the steps of Wulf and Schave (1984) model.

Current work concerning the curriculum development in history puts more emphasis on modeling than explaining the steps of a particular model.

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History Education From Systems Perspective

Using systems approach, history education at the university level may be modeled as shown in Figure 1. This is called History Education System (**Tarih Eğitim Sistemi**) or TES for short.

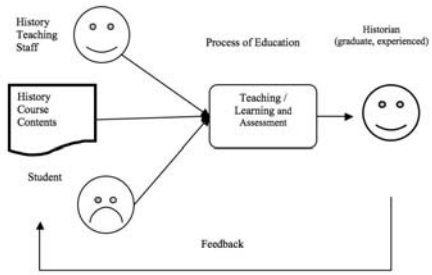

Figure 1.
History Education System (TES)

As shown in the figure, history teaching staff, students and history course contents, inputs to the system, are transformed into outputs as history graduates and experienced history teaching staff (or the historian to represent both) through a process of education. In the process, learning/teaching and assessment methods, called withinputs, regulate the relationships between the students and the teaching staff. Withinputs are different from the inputs in that they change rather slowly. The changes in withinputs are usually triggered by the information entering into the system through feedback mechanism. The outputs, the historians at various levels of knowledge, may enter into the system again through a feedback mechanism together with the information regarding their performance. In the systems approach, the quality of the outputs is regarded as closely tied to the quality of inputs including withinputs. Learning/teaching and assessment are dealt with in the section "Learning/Teaching and Assessment Methods" below.

In Turkish higher education system, the departments virtually have no control over the quality of the incoming students. And they have only little control over the quality of teaching staff. The only area that they have full control is the content and methods of teaching. In short, the history departments will strive to achieve a certain level of quality outputs, that is up to the grade historian, only by manipulating the contents and methods of learning/teaching. The question here is: "what is up to grade historian"? Before that, one must ask: "what does the historian do or what is the history anyway?" These questions are answered below using again the concepts of the systems approach.

Historiography from the Systems Perspective

Numerous volumes are written regarding the nature of the history and history writing often from conflicting perspectives. But the description made by E. H. Carr (1996, p. 37) may be said to be accepted generally by the historians: history "is a continuous process of interaction between the historian and his facts, an unending dialogue between the past and the present." The facts occur within the framework of time and space. They are inseparable attributes of the facts because they provide context for them to be meaningful.

For the historians, the historical time begins with the invention of script. The periods before the script are left to other disciplines such as Anthropology and Archaeology. The end of the historical time is a matter of dispute among the historians. But the general tendency appears to be extending it until the present time under the title, "contemporary history" (Acun, 2008). Regarding space, in theory, it is the whole world. But in practice, the principle of locality applies here too: this principle states that an object is influenced directly only by its immediate surroundings. Therefore, the historians usually restrict themselves to a locality that they live in such as Balkans, Europe and Middle East. For a history department in a university in Turkey, therefore, restriction regarding space would be "Turkey and its hinterland" As may be known, the name "Turkey" covered different geographical areas in the past.

Based on Carr's description of history and the systems approach, the model shown in Figure 2 can be constructed. This model is called Historical Research System (**T**arih **A**raştırma **S**istemi) or TAS for short.

According to the model, the facts selected from a universe that gets larger as one moves forward in time (inverse pyramid represents this), the previous studies done by both the historians and other social scientists on the topic, if any, and the data from socio-economic-political conjuncture are the inputs to the historian's mind. Added to these are the withinputs, the historian's own socio-cultural background data. These are transformed into history through a process of writing which involves going back to the facts selection task as many times as necessary.

The model makes it clear why the histories of two historian writing on the same topic cannot be identical even if they used the same set of facts and had similar education (similar social science knowl-

edge): at least one of the inputs would be different for each historian, that is the socio-cultural background data. Thus the model can be said to point to a relativist history writing.

The model is generic in that in place of "Historian" and "History," any social science discipline and its practitioner can be inserted without any loss of meaning.

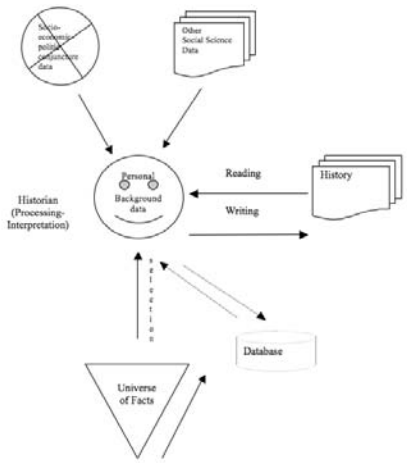

Figure 2.
Historical Research System, TAS

In the present form, the model is universal. It can be used for purpose of doing research on "world history". But the historians usually study a topic that they can handle comfortably by restricting it to a well-defined time and space boundary. At this point, it needs to be pointed out that the advances in the information technology made the boundaries that the historian had to observe in the past flexed, if not removed them altogether.

In summary, the output of the TES model is the historians at various levels of knowledge and experience. The historians in question are the ones who operate within the framework of TAS model. So there is reciprocal relationship between the two models or systems. The output of TES, the historian, is input to TAS. The output of TAS, history, in return, is input to the TES in the form of course contents.

The historian, as the product (or output) of TES, is expected to know and master the framework described in the TAS model, from reading historical works critically, to selecting and analyzing facts and interpreting and writing the results of the analysis.

From this it can be concluded that history education at university level should seek to raise the historians that would work within the framework established by TAS model. Obviously, that involves searching for an appropriate teaching content and method.

In this work, it is proposed that the future historians first learn the present day by starting from himself or herself as a human being because, for the historians, it is the individual human beings that makes history (Yediyıldız, 1990, p. 27) and the society in which they live in by taking introductory courses from the relevant the departments such as psychology, sociology, economics, political science and law before engaging in a dialogue with the past. They then carry on to explore how the individual identities, groups and organizations form, connect with each other and change over time using perhaps a special method called prosopography or group biography (Stone, 1987, p. 45) in order to be able to make projections regarding the shape they would take in the future. Indeed, one of the aims of the history is to make projections about the future (Öz, 2001, p. 18). Along this line, which also implied by TAS model, a list of courses and methods for teaching them has been proposed for undergraduate and graduate programs for the Department of History in Hacettepe University, where a restructuring work was under way recently.

Learning / Teaching and Assessment Method

As a learning / teaching method, a project based approach has been proposed. Project-based approach relies on a real research project either designed primarily education in mind or has an element of education in it. As in other research projects, it has aims, a team who agreed on a working schedule and a budget to realize these aims. Members of the team are graduate and postgraduate students under the supervision of a senior academician. One of the distinguishing aspects of this style of education is the intensive use of information technology, particularly the use of web based, often custom designed applications for the coordination and execution of the project activities.

Electronic records, or logs, of these activities can be used to evaluate the team members' efforts in carrying out the tasks assigned to them. One way of doing this is to categorize the activities and giving them certain weights depending on the diffi-

culty and time it takes to complete an activity in each category. A score can be obtained for one category by multiplying the number of activities with its weight. For one team member, therefore, a total score can be calculated by summarizing scores obtained in all activity categories assigned to him or her. This can be written in a formula as follows:

$$\text{Total Score of one team member} = \sum_{n=1}^{ac}(w_n) \cdot an$$

where, *ac* is the activity category, w_n is the weight of the activity category, and *an* is the number of activity.

As it can be seen from this formula, number of activity category need not to be fixed; it varies depending on type and nature of the project.

This style of education is being applied for more than ten years in the course called "history and computing" which aims to teach computing to the history students in the mentioned department. For this purpose, a web based tool called *kaynakca.info* was developed initially for teaching database concepts but later was converted into a research tool for graduate and post graduate students doing research on the matters involving Turks and Turkey (Acun, 2009a, 2009b, 2010).

Discussion

The approach proposed in this work for developing curriculum in history can be called holistic in that it combines the product approach and the process approach. The processes defined in the TES model involve project-based learning in conjunction with web based interaction tools. Thus the learning method proposed in this work lies within the modern constructivist (Demirel, 2005, p. 233-237) and connectivist (Siemens, 2006) learning theories.

In the past, determining the list of courses and their content to be thought in the history departments would be based on periodisation. This approach used to produce course names such as "History of Ancient Times", "History of Middle Ages" and "History of Modern Times". This approach was found inadequate and abandoned. Recent trend seems to be using a geographical approach which produces course names like this: "History of Asia", "History of Europe" and "History of Mediterranean". From TAS model perspective, this is also inadequate.

As said before, TAS model offers a more holistic approach. If adopted, the courses would involve topics that are relevant to today's societies. This means deriving them from the other social sciences i.e. an element of interdisciplinary would be inserted in all the courses. This is important because the modern society is much more connected than any single social science discipline can handle (McLuhan, 1964, p. 13). Time and space would be used to restrict to topics to a manageable size but also to bring same relevance to the target audience - the students.

Thus, it can be argued that a history education program that was designed around TAS model would be much more coherent than any other programs not based on a proper conceptualization. Education scientists value highly the coherence in curricula (Newmann, Smith, Allensworth, & Bryk, 2001; Schmidt, Wang, & McKnight, 2005).

TES model is based on the interaction of all the parties involved in learning/teaching. That is the students and the teachers interact within the framework of a research project they would all participate. This means that the future historians will be raised in an atmosphere of critical thinking. This is because they will not only learn the subject matter or content of the course ("what to think"), but also the correct way to understand and evaluate this subject matter ("how to think"). The attitudes and habits of mind required by critical thinkers as described by Bailin, Case, Coombs and Daniels (1999) can be acquired best in a research environment. Indeed, critical thinking has the key importance in scientific progress (Popper, 1972, p. 148).

In this work, it is demonstrated by a case study that TES model in conjunction with TAS can be used for produce coherent history learning /teaching programs. This means that they can also be used for evaluating coherence of existing programs. Furthermore, these models are generic in that remove "History" and "Historian" and put any other social science discipline and its practitioner in place, the models would still preserve their validity. But their contribution to learning productivity cannot be seen before an actual implementation of a curriculum based on them.

Finally, the proposed approach in this work, if adopted, would produce teachers that are familiar with constructivist learning theory and practice. The importance of this is that these teachers would easily adapt and even contribute to the development of curricula based on the constructivist theory adopted in Turkey in 2005 in primary and secondary education. This in turn would contribute to raising the quality of students coming to history departments in the universities.

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