## EXTENDED SUMMARY

Our country is aiming to be able to carry out assisted education of information technologies in order to become an information society in accordance with the age. It is aimed to complete the infrastructure of information and communication technology in formal and non-formal education institutions. It is necessary for the students to acquire the competence to use information and communication technologies and to develop teaching programs supported by information and communication technologies. The FATIH Project (2006-2010) was designed for this purpose. Subprojects have been developed within the scope of the five main components of the FATIH project. EBA (Educational Information Network) Project is one of them.

In this study, it has worked on the concept maps which is a part of a project that located in Educational Technology Innovation and the General Directorate (YEĞİTEK) by the Ministry of National Education (MONE) named Education Information Network (EBA). EBA is a social platform designed by YEĞİTEK for the purpose of create effective materials in the process of Education and training by using information technology hardware. The aim of the EBA is to provide reliable materials for convenient grade levels.

Concepts are not pieces of information that can be taught to identify. For this reason, one of the most important mistakes that can be made about concepts is to believe that concepts can only be learned or taught. A concept is an abstract and general design of an object in a mind. When concepts are related to each other, new learning occurs and becomes meaningful as a result of relations established in mind. Concept maps show the relationship between concepts visually. Concept maps are tools that designed for learning the concepts easier to understand by the mind.

There are some criteria in preparing the concept maps. Such as:

- 1. Appropriate qualification of concepts
- 2. Appropriate qualification of conjugate words
- 3. Cross-referencing concepts

Concept maps are frequently referenced materials in the educational process. In this context, concept maps also need to be created in the direction of material design principles. Material design principles are discussed in two parts.

- 1- Usage Principles of Structural / Formal Elements (Line, Shape-form, Area and Space, Dimension, Texture, Color)
  - 2- Usage Principles of Layout Elements (Ratio-scale, Balance, Integrity, Rhythm, Emphasis, Harmony)

In this study, the concept maps used in the educational process shared in EBA were examined and investigated whether they carry the necessary qualifications and conformity with concept map evaluation criteria and material design principles. Research review of the document was prepared by the descriptive research method. The population of the study consisted of seventeen concept maps in Education Information Network (EBA). The studied concept maps are about History, Chemistry, Philosophy, Science, Arabic and Turkish areas. During the study it has been consulted on with two experts about the issues. Two criteria were used for examining the concepts maps; concept map evaluation criteria and material design principles. Concept map evaluation criteria and material design principles substances are converted into two tables. It was determined the compliance with the substances and the 17 concept maps by examining.

Topics of the concept maps in the study: Map 1- Turkish, Expression Disorders; Map 2- Philosophy (Love of Knowledge); Map 3- History, Map of the Cold War Era; Map 4- Chemistry, Chemistry in Our Life; Map 5- History, Sumerians; Map 6- History, Ataturk and Selanik; Map 7- Philosophy, Goodness and Evil; Map 8- Turkish Literature, Traditional Turkish Theater; Map 9- T.C. Revolution History and Kemalism, War of Independence; Map 10- Contemporary Turkish and World History, II. World War and After World War; Map 11- History 10-Reform; Map 12- History 9, Silk Road; Map 13- Foreign Language, German; Map 14- Language and Narration, Verbals; Map 15- Science, Chemistry, Particle Structure of Substance; Map 16- Chemistry Interactions Between Chemical Species; Map 17- Foreign Language, Arabic.

It was determined that 12 of the 17 concept maps from the EBA were not appropriately designed according to the evaluation criteria and 14 of the 17 concept maps according to the material design principles are not designed appropriately because the deficiencies are detected.

When we look at Table 1, it can be seen that 5 of the 17 concept maps considered fit the evaluation criteria in all materials and 4 of them are not suitable for any material. When Table 2 is examined, it is concluded that 3 of the 17 concept maps considered fit the materials design principles in all materials and 4 of them are not suitable for any material.

In addition, it was understood that the 5th concept map is a visual narrative, 7th concept map is a text and text appropriate image, 13th concept map is 3 page word document and 17th concept map is just a simple picture. In this context, it can be said that it is not correct that 4 concept maps are included in EBA concept maps.

According to data it has been determined that only two (11. and 15.) of the 17 concept maps are appropriate for all substances according to the both concept map evaluation criteria and the material design principles.