PHILOSOPHY OF TECHNOLOGY EDUCATION

Gazi Üniv. End. San. Eğt. Fak. Der. Cilt : 1. Sayı : 1. Haziran 1993, Sayfa : 75 - 78

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Today we are living an industrial, technological and scientific culture charecterized by rapid change. Most individuals are far removed from the manufacturing and processing of industrial pruducts, and therefore, have little understanding of the major aspects of industry.

The school prepares youth for the world in which they live. Technology Education makes use of the matematics and science fields to assist with understanding, learning and working in our anvanced technology information area. Technology should be a part of the learning experience of all students at all levels and ability, so that they may understand, function and control their technological environment.

The Need For Teaching Technology Education

We are living in a high technological era; everything is changing at a very fast rate. We have lived in an industrial era which was not as complicated as the technological era. Today very different than before.

Today most educators agree with that study of technology is a very important part of general education. All aspects of education should inform students at every level of the importance of technology.

Technology should be the primary source of content for tehnology education, and the technology should be taught because it effects every aspect o our life. If we consider the future, technology education has a major role to play in education. Technology education

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will help students explore how they can make a contribution in a future society. Technology education is a school program that deals with the application of scientific and mathematical principles.

Technology education provides the student the chance to learn relationships beetween science and technology because science and technology effect our changing society. Technology education is defined as :

«Technology education is an integral part of the general education of each student. It is a comprehensive, activity - based instructional program that is concerned with understanding the evolution, application and significance of technology, the organization, personnel, systems, processes, resources and products of industry; and social/ cultural/environmental impact of both technology and industry.»

As pointed out in Technology Education Program Guide (1988), technology education focuses on a system aproach to develop technological literacy. The systems of communication, construction, manufacturing, power and transportation provide broad content areas of study.

Studying the future through technology education activities can be an exciting area of education. These studies will be solving our technological problems.

The Technology Education Model

Technology education is divided into four areas for study (See Figure 1). These areas are communications, construction, manufacturing, and transportation. In technology education each of the four areas are related to each other. For example, when teaching manufacturing one should cover the communication, construction, and transportation systems that relate to the selected objective.



Communication is a technical adaptive system deigned by people to efficiently utilize resources to transfer information to extent human potential, the system has four steps : (1) planning, to perform task; (2) organizing, to communicate information; (3) directing, to insure efficient communication procedures; and (4) controlling, to optimize results. Construction is a technical system that utilizes resources to build structures or constructed works on a site. Construction systems is broken into four steps to accomplish system goals. These steps are planning, performing, directing and controlling to optimize results. Manufacturing is a technical adaptive system designed by people to efficiently utilize resources to extract and convert raw/recycled materials into industrial standard stok and then into industrial and consumer goods. The four general steps of manufacturing systems that must be adressed in the process of making goods are : planning, to perform the task; organizing, to change materials into new forms; directing, to optimize result. The system may be one utilizing custom, job lot, batch, or continuous manufacture.

Transportation uses resources to obtain and maintain direct physical contact and exchange among individuals and societal units through the movement of materials/goods and people. Transportation provides a service for the movement of people and goods on and/or through land, water, air and space environments. The four elements of the universal system model (input, process, output and feedback See Figure 2) must be placed into the four systems.



In conclusion, technology describe how man has developed and used materials and tools. Technology education provides oportunities for all students from elementary school through higher education, to develop and understanding of the technical, occupational, recreational, managerial, social historical and cultural aspect of industry and technology. Technology education prepares youth to function effectively in a world of advancing technology. In addition to being part of the school curriculum, technology education teaches students to understand, use and control technology.

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Figure 2. The Universal System Model.

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