



## **New Trends in Education**

Dear Readers,

What changes occur in the transition from the education of the agricultural society to the education of the industrial society, and from the education of the industrial society to the education of the information society?

It is a distinctive and important issue for educational researchers to discuss what the new trends in the 21st century education are and where they incline to. The issues addressed here to develop a point of view are the fields of study that have created a paradigmatic change in education in the last two decades and deeply influenced the understanding of education. Those trends have gained recognition of many scientists, theoreticians, educators, researchers and practitioners in the world of education. Numerous quantitative and qualitative scientific studies have been conducted on those fields by scientists in recent years.

Those fields of study emerging as reflections of innovations and thoughts in the field of Educational Sciences are basically compiled as active learning, constructivism, problem-based learning, project-based learning, multiple intelligences, brain-based learning, cooperative learning, distance education, lifelong learning, critical thinking, creative thinking and reflective thinking. The dissemination and recognition of the thoughts of those trends depend considerably on the interest, knowledge and preferences of the researchers and practitioners. The active use of the Internet has led to the rapid dissemination and sharing of every novel idea and practice in the scientific world. Therefore, information sharing over the last two decades has shown a rapid increase when compared to the past.

The problems derived from today's knowledge, technology and human qualities have a rather complex structure. In our age, when knowledge develops and expands at a rapid rate and technology enters into daily life with many of its dimensions, individuals are desired who are able to recognize the relationships between the pieces of information, analyze them and synthesize new information, and use that synthesized information to solve the arising problems rather than individuals who have unrelated memorized information from all types and levels of education. For this purpose, it has been attempted to review and evaluate what the new trends in education that have influenced and directed teaching-learning processes are and what characteristics they have in general.

Active learning supports the view that the most effective learning occurs when the individual is active on his own learning. Active learning can be characterized as a learning process where the learner takes the responsibility of his own learning, has the opportunity for decision-making and self-regulation about various dimensions of learning process, and uses intellectual skills during learning. Active learning aims at

raising individuals who are able to think, make research, produce, solve problems and think critically, rather than to memorize.

Constructivism is a learning approach that is basically attempted to be implemented in curriculum and educational practices worldwide today. Constructivism started in philosophy first, continued in sociology and anthropology, then implemented in psychology and education. Constructivism asserts that knowledge is interpreted and constructed as a result of mutual reflections and discussions, rather than the positivist paradigm emphasizing objectivity. The leading advocates of constructivism are Jean Piaget, J. S. Bruner, John Dewey, L.S Vygotsky and Ernst Von Glasersfeld.

Problem-based learning advocates that the most effective learning occurs when learners solve problems. Problem-based learning was first implemented in the field of medicine by Howard Barrows in Canada McMaster University in 1960s. In the following years, it has been implemented in educational institutions including different fields such as medicine, science, engineering and law in many countries of the world. The purpose of problem-based learning is to enable learners to think, develop problem solving and intellectual skills, learn the adult roles by gaining experience, and become independent learners by constructing real or real-like problem situations. Here the purpose is not only to solve a specific problem, but also to find out the learning objectives that arise with that problem, and to achieve learning objectives in the problem-solving endeavor.

Project-based learning advocates that the most effective learning occurs via projects. Projects need to be carried out in the light of students' questions. Project-based learning (PBL) was first introduced by William H. Kilpatrick. Also at the beginning of the 20th century, John Dewey emphasized project-based learning by highlighting the importance of learning in the natural setting. It started to be investigated considerably particularly after 2000.

Cooperative learning advocates that the most effective learning occurs by collaborating, sharing and socializing in groups. Cooperative learning is a group learning that occurs in classrooms by forming small and heterogeneous groups including two or more individuals to achieve a common goal. Every group work is not cooperative learning. L. S. Vygotsky is the leading advocate of cooperative learning.

Multiple intelligences is one of the most attractive theories in the world of science in the last twenty-five years. Howard Gardner, who is an expert in multiple intelligences, neuropsychology and development, has proposed seven separate and universal intelligence capacities in his book *Frames of Mind*, published in 1983. Those capacities or intelligences are inherent in every individual; however, they appear in different forms in different cultures. According to Gardner's theory, intelligence is a biopsychological potential. Intelligence is the ability to shape a product or solve problems. Although language and math skills are more appreciated in 20th-century education, according to the understanding of multiple intelligences, all intelligences are of equal value, and one of them or more is not more important than the others.

Brain-based learning advocates that the most effective learning occurs when considering the structure, functions and characteristics of human brain. The first goal of education,

teaching and learning requires recognition and examination of the brain. Knowledge of the structure, functions and characteristics of the human brain facilitates educational activities. Understanding the way the brain works guides the learning and teaching process. The education and teaching paradigm of the future depends on a better understanding of how learning and thinking skills function in the brain and how these processes can be improved more effectively. Caine and Caine are the foremost advocates of brain-based learning.

Distance education cannot be considered independently from the means of communication that are utilized. Education by mail, radio, TV and Internet has always been regarded as distance education. Distance education made over the Internet has gained a special importance in this field because of the rapid spread of the types of distance education with other tools and methods in recent years. Both the applications and the considerable amount of studies have begun to increase in this field.

Various social, economic and personal reasons lie behind the emergence of lifelong learning and its rapid spread. The purpose of lifelong learning is to ensure that the individual acquires knowledge and skills to maintain his life in good quality and adapt to different periods of his life.

Critical thinking is the field of study of two main disciplines as philosophy and psychology. Critical thinking is based on the ability and dispositions to effectively acquire, evaluate and use knowledge. Critical thinking is an educational objective emphasized over today's curricula. R. Paul is the leading advocate of critical thinking.

Creative thinking, developed in the framework of Torrance's views, consists mainly of the skills to produce a unique and aesthetic product using the logical and intuition-based aspects of thinking. Many studies have been carried out or are still conducted on the development of creative thinking whose potential is recognized in education. In the studies on creativity and creative thinking, the relationship between creativity and individual characteristics has been investigated in general, or the creativity approach and traditional learning methods have been compared.

Reflective thinking, conceptualized based on John Dewey's views, is defined as an active, sustained, and thoughtful way of thinking about any knowledge and a knowledge structure that supports its intended outcomes. The concept of reflection has been the basis for the training of many new teachers and has been recognized as a considerably important issue in teacher education.

In the world of education, there is a radical, deep and rapid change in the paradigm on learning and teaching. When the main structures of these changes are considered, it seems there is a tendency towards more student-centered approaches rather than teacher-centered approaches.

Sincerely,

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