

USING SMART DEVICES IN EDUCATION

Introduction

We are living in modern era where production, processing, storage and using new knowledge are important factors of society development. Country which has better and flexible education and motivated people for lifelong learning is on the best way to success in this hard period when we are recovering from Covid 19. That is why all the countries in the world are looking for the best ways for personnel education, development of technologies for faster and better quality knowledge acquirement, its processing, practical application as well as production of material and spiritual values. Traditional technologies in education is facing a lot of problems and mostly with insufficient activity of students, inadequate teaching intuition and dynamism, the impossibility of individualization of teaching, lack of continuous feedback on the achievements of students and others. The traditional teaching is mostly realized with frontal form of work with dominant teachers teaching function that does not provide sufficient interaction between the students and students with their professors. They do not leave enough time for independent activities of students in the qualitative function of learning. In last ten years, there was strong will to develop and improve of didactic media, teaching methods and forms in function of raising the efficiency and effectiveness of the teaching process. While technology was developing fast in other fields, school, to a certain extent, stayed at the level of classic work organization. It mostly kept older educational technology and for that reason there is danger (if it would not be changing faster) to stay considerably behind the happenings in production and social relations. Lagging behind of modern school is not so much evident in the field of education contents as it is evident in technique and teaching technology. It seems that we have a problem with number of new didactical aids and adequate technology for using them in order to achieve pedagogical goals. Those problems are evident in all levels of education from primary, secondary school to universities. The current organization of teaching and traditional methodology is created as a comprehensive cognitive system and we do not have feedback which could give us information about quality of our classes and about quality of students knowledge. After completion of classes, students do not know how they successfully overcame the curricula or teacher has full knowledge picture of their students. Feedback should follow the each step of the teaching process in which current practice is not the case. Teaching is more based on the entropic than systematic approach. We could say that we do not have enough modern teaching aids in school, but also that teachers are not well educated to use them in schools where they exists. It is evident that modernization is taking place much faster in the area of engineering, medicine, economy etc. and we are hardly waiting for schools and faculties to follow the innovative processes and to change educational technology in accordance with the needs of young people.

What are the main reasons of insufficient use of smart education devices?

We are facing the problem of insufficient number of modern teaching aids and inadequate educational content according to program in our country and also we sometimes made inadequate

selection of the available teaching aids. If our teachers are not well prepared they are not used in teaching according to requirements and modern educational technology, so we cannot expect faster advancement of teaching. Some of the main reasons for insufficient use of smart devices will be mentioned.

- Teachers capability in the area of educational technology is not is not on the adequate level. They should be aware of their abilities and limitations, well prepared to use them efficiently in teaching process and free activities of pupils. They should be flexible for changes, because of overcoming some teaching aids advantages during time and inventing new technologies, especially in the area of artificial intelligence.
- Our schools mostly have traditional classrooms, so it is sometimes hard to use modern methods, forms of work and technology in that space and financial limitations make problems with supplying schools with new generations smart learning devices which are more usable and pedagogically more efficient.
- Our teachers sometimes have inertia of past accompanied by lethargy, so they like to keep blackboard, oral conversation and book as dominant technology. They do not like smart learning devices and they have a logic that teaching work was done that way for hundred years, it is being done now and that is the easiest way of doing this job. Unfortunately they are not aware of decreasing students motivation and their attitudes about traditional school.
- Teacher education faculties are not well equipped with new generation smart learning devices, and therefore new teachers do not have possibility to be informed about education technology, to comprehend its pedagogical power and to learn how to operate suitable technical means such as artificial intelligence systems, multimedia software, 3D simulations, virtual reality, holograms etc.
- Educational forums (who are in charge of educational policy) and those who are financing schooling, have not so far managed to provide enough resources for supply, installation and application of teaching aids and devices. It seems that teachers could get wrong impression that using new generation smart learning devices is not necessary and that they can work successfully in the old way. Of course, these are not the only reasons why schools do not have enough smart learning devices and why they do not apply them sufficiently in their pedagogical work.

In our time, the prevailing thinking is that teaching process should have three interconnected phases in which teaching aids would have important pedagogical function.

In the first we can say that it should have):

- well designed preparations of teaching contents according to program, selected forms and methods of work compatible with new technology, selecting objects for carrying out teaching and their adjustment to what is intended to be realized;
- well prepared students (their motivating, preparing to understand sense and importance of what is being presented, to be informed in advance about some facts which are important for their active success in teaching, to collect suitable material important for having discussion in teaching process, express different opinions, criticize starting hypotheses and bring in dynamism in the course and results of teaching and learning). Student is well prepared for

teaching if he is not afraid of what might happen during teaching, but impatiently waits for discussions, where he learns, discovers, concludes and solves interesting problems. In connection therewith is preparation of teacher, his knowing teaching contents which he is going to present, means, forms and methods which he is going to use; skill in lessons organization, in keeping attention and pupils activities; reality in estimating time for introductory part of lesson, realization of new material, repeating and final part of lesson, etc).

In the second we can say that it should have:

- dynamic and obvious content presentation with a possibility for detailed analyzing most important modules,
- adjustment of the contents to background knowledge, interests, cognitive styles and pupils learning styles;
- skilled synchronization of teacher presentation with demonstration, understand what he gives for assignments, they come to solutions by their thinking activity and contribute to teaching, develop critical thinking and creative abilities. Such teaching is good which enables understanding sense of contents, encourages thinking, critical reinvestigation, judging, concluding and practical application of acquired knowledge.

In the third we need to have evolution of preparations, course and results of teacher work where quality of teacher and pupils preparation for teaching is evaluated, process and teaching and learning result, quantity and quality of acquired knowledge and its influence on complete personality development. It seems especially important to evaluate practical importance of acquired knowledge, learnt skills, formed habits and developed abilities .It is not only important to fix cumulative being informed or quantity of knowledge, but with what degree of understanding is the acquired knowledge, how much it has influenced development and enrichment of personality, motivation for further learning and self-education. Pedagogical value of teaching aids we use in teaching is important in all the three above stated phases and for that reason it has been subject of great number of studies by our and foreign authors