SCENARIO OF THE MAIN MODERN APPROACHES TO EDUCATION

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ABSTRACT

The future of the nation depends on education. Good education means good future. From this point of view, we have to build and develop our education system in accordance with the requirements of the time and modern standards. However, the solution of existing problems in society requires fundamental reforms in education. And the changes cover almost all areas of the education, from the content and structure of the education to the teaching methods. In this regard, the usage of innovative technologies in the educational process influences the improvement of the quality of education and also affects the growth of our economy and production areas. The most important goal of education is improving the quality of teaching. There are several modern teaching methods that can be used in teaching and learning. These methods are focused on students’ active work. In our project we studied some of these methods, for example problem – based learning, didactic games, methods “how to express the idea with a pencil“(mind maps, tasks), discussion (brainstorming, Philips 66, Hobo), brainstorming, heuristic method. The effectiveness, motivation and problems of these methods were tested during high school physics lessons in Olomouc and Skuteč. The methods were used in various classes by in-service teachers and by pre-graduated teachers. Outcomes of this research are discussed in this paper.

KEYWORDS: education, teacher, educators, pedagogical technologies

INTRODUCTION

Our widespread problem is that high school physics seems to be very difficult. Students compare that physics instruction uses to much formalism, mathematics. On the other hand school physics plays a key role for recruitment of people for science and technological professions. Teaching and learning physics (or science) at high schools in the Czech Republic is still characterized by the chalk-talk method. Lecturing as a method of teaching high school science was found out as one of the less attractive methods. Science education research recommended some teaching strategies that are more effective for promoting understanding of science. Results of research in science education and cognition psychology defined that students learn most effectively in interactive classrooms in which students actively engage in dialog among themselves and with the instructor while manipulating experimental materials. Student-centered methods contain a great number of various instructional methods, for example project-based learning, problem-based learning, just-in-time teaching, discussion methods. All these methods are inductive, based on constructivist approach. Constructivism was studied by Nezvalova. In the constructivist approach the present instructive teaching practice is completed by chosen learning problems through creating adequate learning environment. It is necessary to know that knowing is not closed, it is forming – it constructs itself individually and in terms of social relationships.
Learning is an active process, it realizes in multidimensional relationships. From this perspective the learning process is primarily the matter of construction, learning individuals enter as a co-creators of learning process. Students construct their knowledge, activity and motivations are important. The problem is that teachers in the Czech Republic have not experience with varieties of inductive methods and have not skills to apply these methods in their classrooms. Our research is based on the outcomes of two projects – the project of the Ministry of Education NPV II 2E06020 and the project worked out at the Faculty of Science in Olomouc. The evaluation of the projects shows that students are most of all interested in interactive teaching strategies and experimental laboratory tasks. The use of interactive teaching methods in physics lessons is not very common. Several interactive teaching methods were chosen and used by in-service teachers and pre-service teachers in physics teaching at high schools in the Czech Republic. Properties of the methods will be discussed in the next part of this paper. Education is an engine for the growth and progress of any society. It not only imparts knowledge, skills and inculcates values, but is also responsible for building human capital which breeds, drives and sets technological and knowledge stand out as very important and critical input for growth and survival. Rather than looking at education simply as a means of achieving social upliftment, the society must view education also as an engine of advancement in an information era propelled by its wheels of knowledge and research leading to development. Few education movements are so clearly identified by a single rallying cry as the standards-based reforms now dominating the nation's education policy agenda. "High standards for all students" has come to represent a set of principles for improving student learning that includes prescriptions for both policy and classroom practice. Standards-based reform is premised on the notion that setting high academic standards and then expecting schools to teach and students to learn to those standards can serve as a potent lever to improve overall educational quality. Although this strategy has taken a variety of forms at the national, state, and local levels. Not only does "all students" apply to a different population than it did a century ago, but a variety of social, political, and pedagogical forces have produced diverse educational experiences for students, depending on their abilities, interests, and needs. The "shopping mall" school, with its array of course boutiques offering different learning opportunities, has largely replaced the ideal of the common school. Some schooling practices that work against common standards, such as tracking, are viewed by many as contributing to greater inequity and harming poor and underachieving students’. Other practices that offer differentiated curricula and instructional services, however, are widely accepted as effective strategies for promoting more equitable learning opportunities. These strategies assume that educational expectations and instructional approaches should be tailored to students' individual abilities, needs, and learning styles. Educating these students also requires attention to their unique needs. For over 20 years, the legal environment and professional norms defining special education have emphasized the right of students with disabilities to an appropriate education, with the outcomes and curriculum articulated through an individualized education program (IEP). Because the term "students with disabilities" encompasses a broad range of physical and cognitive conditions, learning goals and instructional accommodations
may vary from student to student. Consequently, a recognition that instructional strategies and assessment techniques need to be tailored to the learning styles and capacities of individual students lies at the core of special education. At the same time, special education policy also requires that students with disabilities be integrated into regular classrooms to the maximum extent possible (i.e., referred to in special education law as placement in the least restrictive environment). Although individualized education has meant specialized services and differentiated outcomes for students with disabilities, the strong presumption in policy and practice has been that these students will share in the collective learning experience that public schooling affords all students. As with most policies, these requirements have been interpreted and implemented differently across the nation's schools and classrooms. Nevertheless, a constant has been the responsibility of the public schools to meet the individual needs of students with disabilities within the common structure that defines the education available to all children.

RESULTS & ANALYSIS

The meaning and purpose of education has undergone much change in the past few centuries both in its intrinsic worthiness and instrumental roles. It has taken many meanings from: enlightenment - dispeller of darkness, agent of social change, leveler I perpetuator of inequality, human capital, a segmentation device and to a 'private merit good', to mention a few. Such connotation and instrumental changes are partly due to changing ideological mindsets and praxis. This chapter briefly outlines the changes in the conceptualization of education with a view to capture the dynamics of socio-economic changes in the society with education as the centre-piece of analysis. Education gets a broader and vocational status in the writings of William Petty. He advocates the educational development of the masses. According to him all should learn trades, increase their skills and broaden their mental horizons. He argued that education was the right of every individual in society and believed that talents were not distributed among children according to their social and economic status. He also held the view that human resources are far more important than natural resources because education enhances the capability of human resources. Although education was given a prominent place in the economic literature of the Mercantilists and Classical economists, its importance as an economic investment found its place in Economics only from the 1960s. The concept of education as an investment came into existence with the Presidential address of Theodore Schultz to the Annual Conference of American Economic Association in 1960. This section reviews the major human capital theories and its relation to economic growth. In other words, Alternative education is an upcoming demanding education and learning approach. The term alternative education itself is a new model of education that can challenge the academic structure and traditional education system. There are various alternative schools that have regular and special education programs. More than that, these schools use building-wide behavior intervention programs. Often there is a lower student-to-adult ratio, and staff has been well trained to address complex behavior needs. Psychiatrists, Psychologists, social workers, and behavior may also provide services to students in alternative
The objective of Alternative schooling is to nurture and motivate inborn abilities and unexplored capabilities as well as the tastes of the kids. Alternative education helps to grow students’ understanding with the help of society and nature. To understand the concept of alternative schooling it is important to focus on how it is different from traditional schooling. The structure of an alternative school varies depending on students’ needs. Most feature smaller class sizes and individualized attention from instructors and staff. Moreover, Alternative high schools may also have more flexible requirements for graduation or de-emphasize student competition and grades, choosing instead to focus on personal achievement. On the other hand, traditional schools offer a very structured environment, with more discipline and consequences for disruptive behavior.

CONCLUSION

Technology is also changing the classroom experience. We can make out that the Information and communication technology has made many innovations in the field of teaching and also made a drastic change from the old paradigm of teaching and learning. In the new paradigm of learning, the role of student is more important than teachers. The concepts of paperless and penless classroom are emerging as an alternative to the old teaching learning method. Nowadays there is democratization of knowledge and the role of the teacher is changing to that of facilitator. We need to have interactive teaching and this changing role of education is inevitable with the introduction of multimedia technology and the spawning of a technologically. Educators, policymakers, administrators, and teacher preparation and professional development programs now should embed these tools and resources into their practices. Working in collaboration with families, researchers, cultural institutions, and all other stakeholders, these groups can eliminate inefficiencies, reach beyond the walls of traditional classrooms, and form strong partnerships to support everywhere, all-the-time learning. Although the presence of technology does not ensure equity and accessibility in learning, it has the power to lower barriers to both in ways previously impossible. No matter their perceived abilities or geographic locations, all learners can access resources, experiences, planning tools, and information that can set them on a path to acquiring expertise unimaginable a generation ago. All of this can work to augment the knowledge, skills, and competencies of educators. Tools and data systems can be integrated seamlessly to provide information on student learning progress beyond the static and dated scores of traditional assessments. Learning dashboards and collaboration and communication tools can help connect teachers and families with instantaneous ease. This all is made more likely with the guidance of strong vision and leadership at all levels from teacher-leaders to school, district, and state administrators. For these roles, too, technology allows greater communication, resource sharing, and improved practice so that the vision is owned by all and dedicated to helping every individual in the system improve learning for students. It is a time of great possibility and progress for the use of technology to support learning. Man is a supreme animal whose position in the world is deciding the survival of other creatures, either the other creatures need to comply with man or they will be of in extinction. Such a powerful creation need to live a complete and conscious life, and make his life worthy and meaningful. Man's life should be guided with ethics and moral principles. One's life is shaped by the interaction with environment called family, relatives,
neighbors, society, nation and the world. Education is a prominent social agency which plays a
decisive role in shaping the personality of the child and the teacher is the shape of the destiny of
the child and the nation. Teachers' mental dispositions, character, emotions, belief systems,
knowledge and wisdom influence students' learning of behavior. Modification of behavior in a
desirable way is conducive to one's personal development and contributes to the welfare of the
global community and preparing the children to uphold human values are considered the purpose
of education. Teachers need to enrich their emotional intelligence to enhance values among
students and to mould their character through identification of their problems and resolve
appropriate strategies to help students to become successful in life.

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