

MODERN CHALLENGES OF TEACHING

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It goes without saying that the system of education should prepare specialists who can meet the needs of society and possess specific skills and knowledge. However, rapid technological, cultural and societal changes make it challenging for educational institutions to catch up with these innumerable and frequently radical shifts which make schools and universities revise their curricula, approach to the teaching process, methodology, and study materials.

There are several current trends which are most likely to produce a noticeable effect on the system of education. “The face of higher education has changed. As today’s students are starting to think and act more like customers – whether it’s shopping around to find the right courses to meet their needs outside of their primary institutions, or going back to school to learn new skills that will make them more employable – organizations need an agile technology framework to help them become more “customer-focused”. In 2018, more higher education institutions will look to configurable systems that can appeal to a wide demographic of students and support a flexible curriculum, shorter course durations, and stackable, more modular courses” [2].

Students are designing, making, coding, composing, animating, and publishing. They are experimenting and tackling the challenges of food, water, housing, and energy. They are connecting across cultural and national borders to promote global awareness and tolerance. They are creating solutions for positive social change and a healthier, more sustainable future.

American scholars looked deeply at changes in a number of categories connected with education. Some of them are well-known while others are still to be introduced in Belarus. The list of these categories is quite extensive and includes the following: “Alternative assessment; brain research; character education; collaboration; conflict resolution/mediation; constructivism; cooperative learning; critical thinking; disaster preparedness; differentiated instruction; distance learning; education news; educational projects; educator financial center; English

language learning; equity and excellence; functional behavioural assessment; global education; inclusion; inquiry-based learning; learning styles; media literacy; multicultural education; professionalization; psycholinguistics; school choice; school violence; social learning theory; standards movement; teacher accountability; teacher as researcher; technology in teaching; the age of litigation; tips for today; tools for accessing literature” [2].

Each category contains an extensive description of the current challenges and changes and helps teaching staff prepare better for the teaching process in the modern classroom taking into account new technological requirements, alternative teaching and assessment methods, demand for an inclusive environment, and the latest findings in the fields of psychology, sociology, and brain research. A lot of attention is now being paid to how students can help teachers in making the teaching/study process more effective by openly voicing their concerns and telling what can be improved in the classroom.

Nowadays more emphasis is also drawn to the needs of students. Professors and instructors should see their students as individuals and provide more personalized attention, care and instruction. However, the conditions for study should be comfortable too. School environment and facilities are starting to play a bigger role in making the study process more welcoming, encouraging and fruitful. The survey conducted among different US schools sought to find out just how much of an impact a condition of school buildings and facilities has on both students and teachers [3]. Some of the results show that enhanced facilities led to less truancy, smoking, and substance abuse among students. It has also been identified that with better school buildings students’ test results rose up significantly. Moreover, the behaviour of the teachers, and the overall quality of instructions seemed to increase alongside the improvements at school.

Today the new forms of students’ performance evaluation shift towards a more comprehensive approach. The traditional assessment as we know it has been utilized, either due to a new reduced class size, or in order to save time on grading. Alternative assessment provides students with an opportunity to demonstrate the depth and scope of their knowledge rather than being limited to just a few responses on a traditional test or exam. Squeezing an entire semester of learning into a single hour of testing often leads to a misrepresentation of student’s learning outcomes [3]. And even though these trends have been identified for the American system of K-12 education they can equally be applied to college and university education and not only in the USA but also around the world.

The biggest part of labour resources will soon be connected with generation of a new knowledge and processing of information and data. In addition, some scientists predict that between 1/3 and 1/2 of all labour force is likely to be substituted with robots in the near future. Moreover, around 600 professions disappeared in the last 100 years or so and scholars at Skolkovo have already

compiled the atlas of professions which will soon be required and this list is completely different from the currently widely spread jobs and professional activities. Thus, students will need to acquire new skills and knowledge and those are to be provided by educational institutions. This will also lead to different requirements for communication skills and a foreign language proficiency. Globalization and international (and intercultural) communication are also already affecting the whole educational process including a wider introduction of various soft skills courses and a more intensive teaching of foreign languages.

Technology, and especially the internet and mobile devices such as tablets and smartphones, has become ubiquitous in our daily lives and affordable even to our public schools. With the internet, students can access primary source documents, research just about anything, and support their own understanding with explanations accompanied by video, animations, or other helpful visualizations. A growing number of education-focused websites help people of all ages and stages of life learn, from students to professionals to leisure-time learners [1].

More changes are about to come in the volume of digitalization and automation in all spheres of life. It seems quite possible that in approximately 5–10 years there will be no more traditional (printed) textbooks. Instead electronic books and Internet resources will be used in the classroom. The benefits of introducing technology into educational process more actively have been widely discussed. The very latest trend is to let the staff and pupils/students use their own gadgets and device in a classroom. More and more school have already started encouraging BYOD (Bring Your Own Device) and allowing students and staff to connect their devices to school's Wi-Fi network. BYOD approach provides schools with many benefits, such as a greater student engagement that comes with more opportunities for personalized learning, easy access to educational applications, and last but not least – greater independent learning [7]. Moreover, it is clear that the use of digital resources that facilitate actual engagement, such as, for instance, interactive resources “will continue to expand in classrooms as obile technologies such as laptops and tablets become more prevalent” [2].

When it comes to new forms of student assessment, the traditional approach where the knowledge is gained and memorized only for a few days before the exams to then be quickly forgotten is changing as well. “Teaching has gone a long way from the traditional lecturer-listener system. Today, teachers are not just lecturers, but guides; students are not just listeners but co-explorers of knowledge. Education has become more interactive and experiential for both parties. Thus, teaching skills have also evolved, with more techniques available for teachers to use” [4]. Instead of preparing a uniform class of uniformly prepared students uniqueness and creativity will become the key ingredients as this is what new professions will demand. Standardization will no longer be encouraged. Thus, the

staff has to think about how to change their teaching methods and assignments in order to develop students' creativity. Students' personalities should be made visible and appreciated and taken into account.

Special attention is already being paid to the issues of motivation and encouragement. They have been rarely mentioned or used in the teaching process in the past. Especially, in the former USSR countries. Nowadays students need to be self-reliant and so the motivation element is something that needs to be incorporated actively in the classroom as usually 90 % of success of students and learners depends, first of all, on their motivation. So, the attention of the teaching staff now is on how the brain works, how coding and decoding of information occurs and how this knowledge can facilitate the process of motivating and stimulating students. The educators must become the facilitators of inspiration providing encouragement and support to their students. Modern innovative education leaders are engaging, motivating, and nurturing students to develop mind-sets for college and career readiness and lifelong learning, thus supporting both social and emotional development. Education researchers and neuroscientists direct their effort towards learning more about how people learn.

Some other trends are also already observable in the modern classroom around the world. Instead of delivering traditional lectures more and more professors are using the flipped classroom approach, are changing the content and educational trajectories to making the materials personalized and customized and adjusted more closely to the needs of the students (using, for instance, Twitter or blogs for communication and doing assignments using social media rather than the traditional essays). The classroom has already become much more varied (multicultural, multiracial, multireligious) and inclusive in nature for those with special educational needs (students with all kinds of disabilities instead of separate schools or classes for disabled students).

Another technological change coming to the schools and universities around the world is the use of virtual and augmented reality, 3D simulators and artificial intelligence though simulation has already been in use for decades but now it is done with the help of computers. "Experts suggest three most essential considerations for employing technology in classrooms. One is meticulous planning, covering specific ways to use, track, and assess the performance of the devices. Another is proper training of all concerned – including students, teachers, and even parents. Third is an ever-ready support system, ideally composed of tech-savvy specialists. All these should be combined in a comprehensive vision of an improved school. Technological advancements are not just for experimentation purposes. They are meant to push forward efforts towards development, and that principle should especially be inculcated in schools. Using technology in classrooms should ideally result in more globally competent yet more responsible students" [5].

However, pupils and students need to be trained to use modern technologies. It is a job of schools to educate both students and their families about the importance of technology and to make sure that all students are digitally literate. Likewise, the adult learning opportunities must expand through public libraries, community centres, and adult learning programs aimed at improvement of digital literacy and overall workforce skills.

Upon completion of their education at college or university students should become fully functional professionals and be equipped with the skills needed in the real world (versus the study environment). Thus, in order to prepare qualified specialists the teaching staff should know the skill demands of the globalized world really well. Only then the teachers and professors will be able to prepare students for the challenges of the adult world. “Teachers are increasingly becoming the facilitators (rather than the chief protagonists) of their students’ education and learning experience. Schools in our mobile age are moving away from rote learning toward valuable skill-based wisdom. It is not just about *what* you know, but rather *how* you know it, and what you are planning to do with that data. By presenting students with deeper-level questions and instant access to almost infinite data and information, teachers are able to encourage children to become inquisitive problem-solvers and innovators” [7].

Some schools around the world have now adopted the business approach and train their teaching staff to become coaches and move along the hierarchy of teacher-tutor-coach believing that teachers should identify the trajectory for their students’ learning. That goes hand in hand with the use of Functional Behavioral Assessments (developed in the USA), as “... maladaptive or “bad” behaviour coexists during the time a student stays in school. By means of Functional Behavioral Assessments, the educators will be able to come up with effective strategies to increase the likelihood that the adaptive behaviours are exhibited while decreasing the opportunities to display maladaptive behaviours...” [6].

Moreover, this type of assessment also has a big impact on the schools’ curricula and program development. “A school’s curriculum is not solely based on the competencies that define what a student needs to know, but also on the behaviour that a student exhibits in response to factual knowledge. As a subjective outcome measure, data obtained from Functional Behavioral Assessments can be used to determine whether the student benefits from the educational services that he or she currently receives. Presence of unacceptable behaviour would likely mean that the educators must make changes so that the student may respond more to the teaching strategies” [6].

When talking about the inclusive classroom the Functional Behavioral Assessments can also be used quite effectively, as it “is a very important tool in understanding students with special needs. In many special education schools in the United States, FBAs are usually used to identify the concerns of students with

communication or cognitive problems who may not be capable of rationalizing their display of maladaptive behaviours. Since these students have more observable “routines” in response to educational strategies, changes in these behaviours become reliable measures to which the educators must refer to be able to address their individual concerns” [6].

Finally, it should be kept in mind that, “Employers require maximum return from their investment. Programs that, in reality, provided very little in terms of real world ‘industry up-skilling’ are of no attraction to the increasingly savvy employer base. To remain attractive, education providers will create and offer genuinely useful programs that are relevant to the needs of industry, are not one-size-fits-all, and that can be delivered in innovative and flexible ways-allowing employers to keep staff at their posts for as long as possible” [2]. Recent research (conducted for over 300 higher education clients) has demonstrated “...that program creation and diversification are top-of-mind across institutions big and small, community or Ivy. From incorporating new courses and programs, like those for data science or for AR/VR programming, to diversifying how completion is obtained (i. e. badges, certifications, etc.); and from a growing need to partner with industry to create program/graduation pipelines, to becoming increasingly accountable for a student’s postsecondary ROI [2].

Thus, all of the above makes it clear that radical changes have come and are continuing to produce a significant impact on the system of education and should be effectively dealt with by educational institutions around the world.

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