The consultation is part of the Novigado project’s O2 “Active Learning Reference Framework”.

**How should active learning look like in a school? What would you recommend to teachers?**

*By Ahmet Göçen, Assistant Professor in Harran University Education Faculty*

Active learning is an approach in education that involves actively engaging students with the goals of lesson through discussions, problem solving, case studies, role plays and other in class methods. It expresses the full participation of all students in learning activities in the class.

Traditional classrooms are the places where only a group of students are immersed in the educational process, leaving other groups away of the learning activities. This can be likened to the types of movies which has their special viewers. Not all people like action movies while some like dramas, the same is in classes, each student with different needs sometimes may stay out of the focus of course activities. If we want to talk about “active learning” in class, it means we should have education process that is attractive to needs of diverse students in the same class. There, we need to count the emotional, psychomotor and affective development of students. A good teacher does less to achieve more by planning a set of activities that help students to be part of them in teaching period.

What purveyors of entertainment like Disney and computer game makers understand and accept is totally different than we adults perceive. If games can keep students’ interest for hours, the classes can do the same. So, we need to focus on qualities of classes that make students interested, first of all we need ask these questions, Are student feeling themselves comfortable in classes? Do they have access to what they need in the class? Do they think they are the focus the class, or the families’ and teachers’ goals in the class?

Most important of all, we need to give a student-centred aspect to tools that we use in schools, all schools have computers, but should we use them teaching typewriting or excel functions? It is commonplace for schools to use computers as though they were typewriters, programmed textbooks, or calculators. It is, unfortunately, less common for schools to use computers to develop new forms of intellectual activity for students where they enjoy. A wise teacher does not teach advanced computer uses in the class, s/he knows what students enjoy and give them computer-based tasks where they can learn the use of computer and make search and design their own learning.

Educational systems need to innovate themselves to help teachers and students gain 21st-century skills and be actively prepared for the new century. To realize this effectively, policymakers reinterpret modern educational methods and implementations based on the current data. Industrial Age is a past, the classrooms of today is to be shaped for the digital age. Before the 2000s, education was about teaching people something or solely a transfer of knowledge. In more recent years, it has become about making sure that individuals develop a reliable compass and evolved navigation skills in times of uncertainty (OECD, 2015). If countries expect their students to be embed with 21st century skills, they can’t use old cars to catch up Ferrari spirited generations today.
Henry Ford mentions “If I had asked people what they wanted, they would have said faster horses.”; thus, if school today go in old style they would produce faster test solvers, but not inventors or entrepreneurs like Elon Musk, they can contribute into more test based systems. Musk started his journey with Commodore Vic-20, a very simple version of computers today, by playing and designing games. What makes Elon Musk different than that of his peers is that he came in contact with computers at the right time with the right interest.

Suggestions to Teachers:

1 - The key strategy for changing the student's role from passive to active is cooperative learning. In cooperative learning situations, students work in small groups to achieve a shared set of goals relating to academic assignments, Social Interdependence Theory should be taken into account (See, Johnson & Johnson, 2008, p.29). Traditional classrooms do not give students the chance to work in groups, carry out projects, and collaborate with those outside the classroom. The flexible learning environments like FCL allows students to take up various roles and manage project-based activities in collaboration within a flexible learning environment and supports students' innovation and creativity skills within the learning spaces.

2 - Teacher should make use of technology and flexible learning zones in the right way. Active learning can be supported with innovative learning environments and use of relevant ICT. Future Classroom Lab (FCL) is the best example in this regard. According to the OECD Innovative Learning Systems Report (2015, p.4), two-thirds of teachers participating in TALIS consider current teaching spaces to work against innovation. So, schools should keep changing layout to foster entrepreneurship and innovation. Schools should at least remove nailed desks/tables and place flexible seating medias. Companies in Silicon Valley do not have spectacular furniture, they have open workspaces and social facilities to keep people more flexible and connected. SCALE-UP project—Student- Centered Active Learning Environment for Undergraduate Programs—operated by North Carolina State University, TEAL [Technology Enabled Active Learning] operated by Massachusetts Institute of Technology and University Minnesota’s Active Learning Classrooms (ALCs) are another successful sign of focus on changing the classroom space to enhance active learning pedagogy. As a result of the flexible class, the concept of "those on the back row" may disappear!

3 - Even if FCL class is not possible, teacher can make some changes to have active environment. It is important a nice environment in the classroom to make easy the active learning to happen. Placing the desks in groups or circles help students to chat more and exchange opinions. To promote active learning, teachers need to prepare meaningful materials to let students engage with. Students need to participate in the learning of process through peer, group activities or discussion, real-world situations.

4 - It is a practical idea to have students organize some parts of the plan to get the chance to evaluate the learning process from their point of view. Interactive tools are of high importance to implement active learning as well.

5 - STEM education along with project/problem-based teaching should be the priority of schools. One of effective ways to keep students’ interest is to hand them real life problems and help them solve the problems on their own. Lessons built on interdisciplinary activities includes some magic in it. STEM which resonates with inquiry and project-based learning strategies to a great extent, can contribute a lot to schools.
6 - Active learning should engage students to participate in the learning process by removing them from the passive position to a more active attitude. It is important to consider the background of the students and their interests. This will make them more involved and excited about the lesson since it will have connection with their real lives and daily routine. Teachers can promote active learning through many types of activities as: role-plays, brainstorms, predictions, debates and presentations, games... In these activities the students are the main actors in the process and the teachers are only mediators that help and facilitate the learning.  

7 - The way that teachers encourage students to participate are very important. Giving the students time to complete the tasks and rewarding them for the participation will encourage them to change their attitude from passive to active.  

8 - For schools to exploit new technologies properly and recapture the attention and commitment of students, old systems must change. The rules, roles, and relationships shaping organizational behavior that were appropriate to schools in which lectures and books were the prime technologies must be changed to rules, roles, and relationships that can also fully exploit the new technologies that are emerging.  

9 - When school administrators care about professional training, use of technology tools in school, learning spaces, and scenario-based learning in classrooms, the intended achievement can be easily attained. The main goal is to foster high-quality student learning by these means at the school. Schools should coach their teachers in active learning pedagogy with a view to “the learning spaces, pedagogy and the integration of technology”  

10 - Teachers should raise their awareness on topics like TPACK. TPACK represents content knowledge, pedagogical knowledge, and technical knowledge. This model, developed by educational researchers Mishra and Kohler (2006), is designed around the idea that content (what you teach) and pedagogy (how you teach) must be the basis for any technology that you plan to use in your classroom to enhance active learning.  

**AUTHOR BIO:**

Ahmet Göçen is an Assistant Professor in Harran University Education Faculty and project expert with an experience of 10 years in the field. He lectures on educational sciences and manager several science and technology projects in Turkey. His projects on technology integration into education includes “STEM for Girls” supported by Australian Embassy, “AI-Astro in Education” supported by USA Embassy in Ankara, STEM Engineers of Future supported within Erasmus.  

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