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Global challenges and strategies to achieve practical and effective digital learning

The Global Scholars program enables interaction between students of different nationalities and cultures, fostering mutual understanding and the development of skills basic for their future

Can remote learning be effective? Is physical distance an obstacle for student engagement? In a global context marked by the coronavirus pandemic, it all depends on how these classes have been designed. In well-conceived digital classrooms, school children can acquire essential knowledge and skills for their future, such as critical thinking, digital literacy, global engagement and team work, according to the results of *Far from Remote: Survey Evidence of Student Learning in Digital Classrooms* carried out by Global Cities, Inc., a program of Bloomberg Philanthropies.

The report, based on a survey of over 8,500 students in 47 cities across five continents, is based on Global Scholars, an education program operated by Global Cities, that allows public school students between the ages of 10 and 13 (from 5th to 8th grade) to work collaboratively with students from other countries and cultures, in English and using digital tools. Throughout the school year, the children (organized into secure digital classrooms with around 300 students from between eight and ten different cities) carry out a series of practical assignments related to a global challenge, with two main focuses: sustainability and technology. At the end of the year, they implement a local community action project which strengthens the students' idea that their actions matter and that they can contribute to making a better world.

Sustainable consumption, water scarcity or the preservation of biodiversity are some of the topics covered during the past seven years in which this initiative has been running, with 3,200 students from the Community of Madrid and Catalonia participating this school year, either as an extra-curricular activity, by incorporating this digital curriculum into existing classes, or as a stand-alone subject. By combining teacher-led instruction using a digital curriculum, and student interaction in discussion boards, "kids learn to believe in themselves and their ability to change their communities, completing projects, and sharing knowledge with their peers," states Marjorie B. Tiven, founder and president of Global Cities. Technology, she points out, can provide unique opportunities for learning through dialogue and collaboration.

Promoting global engagement

According to estimations by the United Nations, by 2050 68% of the world's population will live in urban environments. Cities have greater impact on everything related to climate change and sustainability, which is why Global Scholars concentrates on providing local solutions to global challenges. Throughout the year, every week, teachers guide students through learning activities which help them to increase their knowledge of these challenges and their global impact. "Students share and compare their opinions in discussion boards that foster a sense of community, and they develop a more nuanced, global understanding of the issue by reading and replying to peers' posts,

thereby learning about new solutions," explains Megan Wilhelm, education program manager at Global Cities.

"It helped me a lot because I was able to communicate with students from other countries, and I learnt to respect their ideas and opinions, which are very different to mine," recalls Elisabet Pujol, a student at the Institut Vall de Llémena in Girona, who took part in Global Scholars during the 2015-16 school year. That year, their community action project was to design a sustainable route to the town center, comparing the time, cost and CO2 emissions of a car and a bicycle; they promoted it on a cycling forum, and made a video and a Kahoot. Her brother Marc is taking part this year: "We are working on sustainable consumption and how we can improve it. We are learning that, through small things, we can achieve big changes."

Naia Teixidor is in 8th grade at the same school and is also taking this subject: "It's one of my favorite classes, because you can participate a lot in class and it's very interesting. We spent one day collecting all the plastic we had consumed, we took it to school and found that we had one and a half kilos of wrapping and packaging... It makes you think about the consequences of your actions, and I believe this can help things to get better in the future."

Competency-based learning

The success of a program like Global Scholars is based on a curriculum that is specifically designed to develop global competencies within a digital environment: appreciation for diversity and cultural understanding, global knowledge and engagement, digital literacy, self-efficacy, academic engagement and critical thinking; objectives which provide a basis for the development of each school year's activities. It is a question of understanding how the world works and taking action to improve it, either locally or globally, "applying their knowledge and experiences, critical thinking and the perspectives they have discovered of students from cultures that greatly differ from their own," claims Xavier Cortina, a teacher at Vall de Llémena, a public school which opened in 2014 and which is particularly focused on technology and competency-based education.

There are many very clear benefits, he adds: "Cooperation, knowing how to work collaboratively inside and outside the classroom... this is the future of education. Project-based learning, in groups, in an efficient and organized way also has an emotional impact which is very important for learning." A video call on Skype, for example, helps them to realize that there is someone on the other side, and many students learn quicker when there is an emotional factor involved. Can global competencies be learnt remotely? "Not only is it possible, it can't be any other way. When these students are older, their work will be collaborative, and online." Furthermore, the fact that all communication is in English means they improve their English-language skills, with English no longer just another subject but an essential and productive tool with which to communicate.

For remote learning to be truly effective, points out Cortina, it must also be competency-based, which is particularly useful for students with greater academic difficulties: "When their work is competency-based, meaning that the activities are carried out with a specific aim, in order to apply new knowledge, this is particularly beneficial to students with difficulties." This is confirmed by the Global Cities study:

students with previously low levels of interest and confidence in their own abilities show remarkable progress throughout the program. On a scale of one to five, the average score of students who initially thought of themselves as unable to be high academic achievers went from 2.71 to 3.58, especially in relation to their ability to share and discuss global topics.

"Interaction is the key to engaging students in online learning. Whether they are connecting with peers around the world or peers around the block, they are eager to interact with others about topics that are meaningful to them," points out Wilhelm. "Right now, many students in the e-classroom are asking one another about their pandemic experiences. This is a topic that affects their daily lives, and learning from peers in the e-classroom helps them develop empathy and gain a more global perspective." By learning about other perspectives or looking for other opinions on their ideas, they acquire the habit of respectfully interacting with others who think differently. "The new things they learn, the information they analyze, and the ideas they develop together lead to better solutions that help more people."

The abovementioned study brings to light other fundamental conclusions: by the end of the program, the number of students who thought their actions could affect other people, be it in their own city or from the rest of the world, had increased (from 3.6 to 3.74 out of 5), something particularly remarkable amongst less academically engaged students, for whom global engagement had gone from 1.89 to 3.23 in a single year. Enthusiasm for global learning remained stable (a final 4.2 out of 5, compared to an initial 4.28), and the study demonstrated that the teachers who participated fully in interactive professional development were able to achieve greater growth in the global engagement of their students.

The essential role of teachers and technology

To guarantee teachers' efficiency and commitment to the Global Scholars curriculum, the organization provides specific professional development sessions via videoconferences prior to each teaching unit. This supports them in implementing the curriculum and helping their students to assimilate the technology as well as possible; both when researching and creating or presenting their work, and when discussing it with students from a wide variety of origins. These sessions also help them to become familiar with various digital tools and to exchange ideas with teachers from other cities.

Technological progress has fostered the development of applications and digital resources. "There are lots, so many and so attractive that at first you would use all of them," reflects Cortina. This is why "you have to think about what makes an assignment competency-based. The resources must allow you to build something together, and this way the assignment makes sense: using video in teaching, the Google environment..." "Students don't use new technologies passively," he continues, "but rather they use them to create content. When using technology in such an intense way, some students even discover skills they didn't know they had," Soon Cortina will be producing a digital book with his students, with recommendations around consumption; a tool he didn't know about and one with which he will become familiar thanks to the professional development and guidance provided by Global Scholars. Always with one aim, of course: to develop the tools and skills the students will need in later life, in order to become globally competent adults.