National examination results improved by 10%

Access to information improved 8x

x2

Over twice as many students join classes

Student motivation increased by 90%

Digital transformation sees soaring grades in Romanian schools as educational equality improves

Romanian Ministry of Education

Size:	250 employees
Industry:	Education
Location:	Romania

Solutions

- Video-enabled distance learning
- Connected classrooms where learning is possible anywhere, anytime, with any device

Location-dependent educational standards

Education in Romania used to be something of a two-tier affair. Go to a city school and you were likely to get traditional educational opportunities including decent facilities, access to a wide range of content, and contact with subject-matter experts and thought leaders.

Things out of town were rather different. Schools were mostly poorly equipped, resources were limited, and teachers were stretched. Not surprisingly, in national exams, city-dwelling students usually did better than their rural counterparts. That inequality had a negative impact on the nation's competitiveness.

In 2013, the European Commission identified Romanian education as a possible barrier to economic growth. Its report cited quality and access shortcomings in secondary and tertiary education. On basic skills, it ranked Romania among the worst European Union (EU) performers.

Marinela Peiciu, a Romanian schools inspector, says: "Learning took place in a closed environment with a low level of information and resources."

It was clear the education system needed a fundamental shift, not just for the good of students but also the nation as a whole.

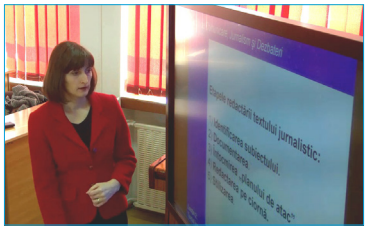
Digital bridges with global access for rural and city learning

In response, the Romanian Ministry of Education embarked on a bold digital transformation program to bridge this educational divide. The goal was to establish connected classrooms where learning is possible anywhere, anytime, with any device.

Teachers and professors now have unlimited access to educational resources, moving from traditional education spaces to global access online. Faculty can collaborate effectively on joint projects with peers many miles away enabling a more connected classroom. And easy-to-access educational content is recorded and replayed as needed, so students can learn at their own pace, creating a virtual classroom environment.

The solution is based on Cisco® video technology end-to-end with software virtualized on Cisco servers, and content and users protected by Cisco firewalls.

Children in remote regions can access previously unavailable content



Virtual classrooms increase student interest and participation

A growing library of recorded video teaching material is being built

This digital tranformation in education has brought innovation to teaching and quality of learning. Educators are now engaged in online communities and virtual classrooms. Starting April 2014, a number of programs covered approximately 8000 seventh and eighth-grade students in 36 schools across the counties of Brașov, Tulcea, Constanta, Iasi, Braila, and Galati.

Video extends virtual classrooms into remote communities

Aided by EU funding and working alongside the country's various inspectorates, rural and city schools and high schools benefit from a range of Cisco videoconferencing endpoints.

Today, video is changing the face of education in Romania. Students in remote schools, employing virtual classrooms, now hear from city-based subject matter experts.

An example of this education transformation is Monica Schiller's journalism classes. Before, she was limited to teaching approximately 25 students who were able to attend school in person. Now, with Cisco Video Collaboration, more than 60 students join her virtual classroom every weekend.

"We cover the whole country," Schiller says. "There are students from schools in rural areas who I never knew aspired to these skills. They were out of reach before, so missed out."

Education is fun and engaging

The technology doesn't just help Schiller reach a much greater number of students; it also helps assemble more engaging teaching materials. Lectures are brought to life with presentations, images, videos, and other multimedia content. This satifies students' rising needs for educational accessibility while ensuring a highly connected experience with Cisco secure networking.

"I have a lot of fun preparing the lessons," says Schiller. "It's great to be able to use films and photos instead of uninspiring work sheets."

Leaping academic achievements

While lessons such as these may be fun, they also greatly benefit the Romanian educational system.

One of the most striking examples has been in Tulcea County, a sparsely-populated region where many schools are isolated on islands in the Danube delta. There, graduation rates for national baccalaureate exams leapt from 59 percent in 2014 to more than 73 percent in 2015.

Overall, with distance-learning capabilities through digitization, baccalaureate pass rates are thought to have improved by 10 percent across all rural areas.

"This technology is very motivating for our students."

Ana-Maria Vladau
Schools Inspector
Brașov Schools Inspectorate

Inspiring a thirst for knowledge

Studies on student motivation, meanwhile, showed improvement by up to 90 percent. Ana-Maria Vladau, a schools inspector in Brașov, believes students are receiving roughly eight times more information than they had previously.

Digital learning expands the educational opportunity for both student and teacher—from physical textbooks to an entire world of digital information in the form of text, audio, and video.

"Before, only a few students had access to very specific materials," says Vladau. "Now, 100 percent of students can access a much wider range of educational content and learning tools."

Solid business case

In terms of saving on teacher and student travel and other direct costs, the Cisco technology should pay for itself within five years. But the value to Romania is already being felt.

For More Information

To learn more about the Cisco solutions featured in this case study, visit the following webpages.

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