

5G O-RAN: Delivering a Livelier Approach to Learning English

5G Rural Smart VR/AR Gamified Educational Scenario Project

Language proficiency is essential for the next generation to stay competitive. By applying private 5G networks in smart digital education on campuses in rural areas, we can close the learning gap between urban and rural areas caused by unequal resource distribution. Besides co-learning and teacher sharing across regions, AR/VR scenario-based gamified teaching makes learning methods more diverse and interesting.

Project Results

#Closed the Educational Gap Between Urban and Rural Areas | Increased the educational resources and learning interest of junior high school students in rural areas, improved their learning outcomes, and reduced the digital divide with the assistance of technology.

#Helped Students Align with International Standards | Created a smart English campus through gamified digital teaching materials and improved students' language proficiency through immersive learning.

BEFORE

AFTER

- Students in rural areas did not have the opportunity to visit museums, and most learned about relics and history through course lectures supported by images or videos.

- Conventional English teaching materials lacked assistive tools to guide students to speak English, making it hard to increase their learning interest and improve learning outcomes.

- Rural areas lacked teachers and educational resources; in addition, Internet access was unstable, often with high latency.

Immersive learning allows children in rural areas to also have access to professional English teachers

- Private 5G networks were used to accelerate Internet speeds and establish co-learning and teacher sharing mechanisms across regions, solving the issue of insufficient teachers in rural areas.

Reality experience of traveling around the world while learning English in the classroom

- A tablet PC and VR headset are linked to AR of traveling around the world and VR of 12 daily life scenarios, using gamified and scenario-based teaching methods for students to practice speaking English.
- 5G streaming combined with relics from the National Palace Museum allow remote visits to exhibitions, and AR/VR exhibitions of relics improve outcomes through immersive and interactive learning.