



SCHOOL CASE STUDY

Antalya Erünal Social Sciences High School

School name	Antalya Erünal Social Sciences High School
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City and country	Antalya/Turkey
Website	http://antalyaerunalsbl.meb.k12.tr/ https://youtu.be/RGfUfFqD0d8
Age of students	15-18
Number of staff	59
Area of focus	Social Sciences, language-based learning, project-based learning (scientific, artistic, cultural and sports projects), Future Classroom Lab, STEM education, use of robotics, coding & encoding.

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Background, Context and Drivers to change

ErünaLAB 6.0 room (FCL) was created in our school in early 2019 to provide innovative pedagogies, methods, resources, and appropriate learning environments by incorporating our students into a deep and active learning environment and to reorganize the traditional classrooms. With the creation of this environment in our school, it is aimed that our students and teachers gain access to the priorities of the developing modern technologies at the same time with the whole world, and to integrate the 21st century digital skills into learning and teaching process.

The financial requirements of the classroom were supported by the help of sponsors, donations and making old tools and equipment ready for use again. Then, with the help of our Ministry of National Education, the number of our technological devices was increased.

Flexible/innovative learning environment

ErünaLAB 6.0 is designed as an innovative learning space with different learning zones and new generation technological devices. Two traditional classrooms were combined to form our new learning environment in which six different learning zones (Interact, Exchange, Investigate, Create, Present and Develop zones) were created. Each zone highlights specific areas of learning and teaching, and helps to rethink different points: physical space, resources, changing roles of students and teachers, and how to support different learning styles. Each space is equipped with the necessary technological devices and flexible furniture.



Our lab is equipped with 4 computers, 2 smart boards, 2 whiteboards, green boards, 1 pair of virtual reality glasses, 3D printers, a 3D scanner, a laser CNC machine, a Sublimation print set, drone with camera, 4 drones, a go pro, a professional photo-camera and camera, a graphic tablet, a microphone, a wireless presenter, LCD televisions, a green montage screen, soft boxes, tablet computers, mBot educational robots, a robotic arm, Arduino sets and other tools. While creating our new environment, special focus was given to equip each learning area with flexible furniture and technological devices. For example, while a student is traveling in space by using virtual reality glasses in English lessons, furniture can be rearranged according to the content. While we are doing Erunal Talks events, we can change the furniture according to the stage and audiences' position. Or students can use space or furniture according to their position while doing group work.

"Students become more motivated and creative when they learn in FCL."

Hoseda SARI, English Teacher

Student-centred pedagogy

With the creation of FLE in our school, it is aimed that our students and teachers gain access to the priorities of the developing modern world and integrate the 21st century digital skills into learning and teaching process. Teachers design and implement interdisciplinary collaborative learning and teaching activities in the ErünaLAB 6.0. Our principal and teaching staff adapt to the innovative approaches, teaching methods and techniques and produce various social and scientific course designs and projects intertwined with innovative, interdisciplinary cooperation and technology in order to support students' social and academic development and to educate them as well equip individuals with 21st century skills.

Social sciences 4.0 FETC+ Practices project (the multidisciplinary process of social sciences), interdisciplinary courses, Erüna Talks (face to face and distance), drama, debating, MUN (Model UN) and conversation activities and seminars are some of the activities organized in this lab.

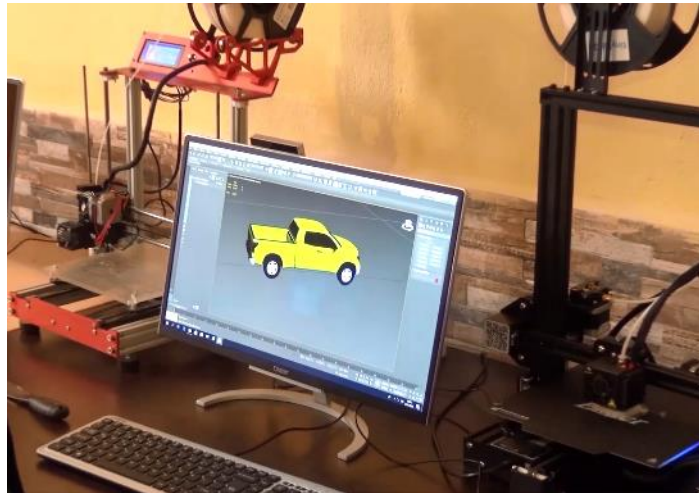
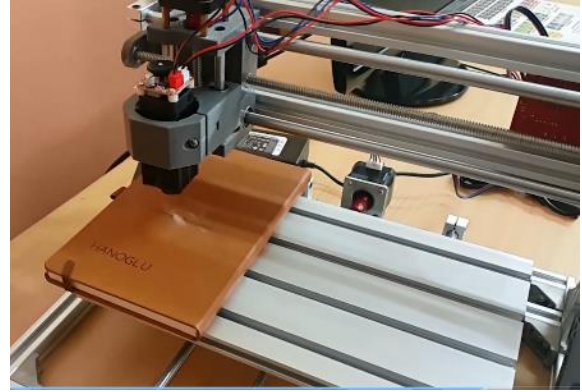
Erunal Talks is an activity in which students share information in English and German languages about the fields they succeeded in. We also organize this event to contribute to the professional development of our teachers.

Social Sciences 4.0 FETC+ is the multidisciplinary process of social sciences with common educational attainments. FETC+ consists of the Turkish Initials of Philosophy, Literature, History, Geography, and '+' refers to other courses related to the subject such as Visual Arts, Music, Foreign Language, Mathematics and Information Technologies.

In our school, we have a team consisting of 1 teacher from each branch to plan and implement Social Sciences 4.0 FETC + Practices project. At the beginning of the academic year, we determine 10 topics as a team, and determine which courses will be taught together in which application. At different times throughout the year, we prepare lesson plans in cooperation with 3-4 teachers. We do an achievement test of 10-15 questions before and after the application.

Use of technology

Our learning space supports STEMA+ Education, Coding, Encoding, Robotics, Web 2.0, Web 3.0 tools which have become a necessity for all countries in the world and provides a suitable space for these studies. Students can determine the suitable technological device- learning space and design the furniture according to the work they do (individually or in teams). Designing and modifying classroom layout depends on the content of the lessons. For example, while conducting interdisciplinary courses, students work with scenarios based on interpretation, analysis, production and building knowledge according to the content of the course. Another example is while studying the subject of space in English lessons, students can go on a virtual space trip by using virtual reality glasses.



In the **Present zone**, students are encouraged to convey their concept maps, presentations or videos they have enriched with art or technology such as microphone, wireless presenter, LCD televisions.

In the **Interact zone**, teachers exemplify how technology can increase student engagement and interaction. The content is enriched by integrating smart boards, tablets, smartphones, drones, Arduino, robotics sets and Web 3.0 tools into the lessons.

In the **Investigate zone**, teachers provide opportunities for inquiry-based and project-based learning to develop students' critical thinking skills, and students are given the chance to do research on the subject by using computer, tablets, etc.

In the **Exchange zone**, students perform teamwork for production and research. Students can enrich their ideas by integrating technological tools such as smart boards, whiteboards, mBot educational robots, robotic arm and Arduino sets into their work.

In the **Develop zone**, students can do their own work independently. This area offers students the opportunity to perform informal learning by focusing on their own interests. In this area they can design any item, their own cups and t-shirts by using graphic tablet, laser CNC machine, Sublimation print set or produce an item by using 3D scanner and 3D printer, etc.

In the **Create zone**, students can plan, design and produce their own work. In this zone, they can take their own videos and photos in line with their needs and use these photos and videos to design on computers and tablets.

"It is a privilege for our students to have access to such an effective learning environment as FCL promoting interaction."
Nihal URHAN, English Teacher



Impact

Benefits

- The school provides and develops the teaching materials by using the technological tools in this laboratory.
- Teachers develop their teaching potentials by going beyond their traditional styles.
- Students discover their potentials of creativity, production, and talents boundlessly.
- It is ensured that knowledge becomes more permanent by integrating technology into the learning and teaching process.
- Learning is provided by doing, experiencing and having fun.

Challenges

- We have not encountered any difficulties regarding the use of the classroom yet, but we may encounter problems such as the breakdown of technological devices.



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