NOVIGADO

ACTIVE LEARNING AND INNOVATIVE TEACHING IN FLEXIBLE LEARNING SPACES

SCHOOL CASE STUDY

Liceum Ogólnokształcące 17 Secondary School

School name	Secondary School No 17 in Gdynia / 17 Liceum Ogólnokształcące w Gdyni
Head teacher	Witold Chudyszewicz
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City and country	Gdynia, Poland
Website	https://17logdynia.pl/
Age of students	16-19
Number of staff	39
Area of focus	Students' engaging pedagogy, STEM education

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Background, Context and Drivers to change

The school building was designed from roots, so there were a lot of consultations going on among the members of the school community. Headmasters, teachers and students were involved in this process and together with architects and local government representatives they worked out proposals for the future school building in a series of working group meetings.

The school space was designed to facilitate 21st century competences, using modern educational technologies and foster relationships of the community. A significant number of recommendations came from Microsoft experts, as this school joined Microsoft Flagship School network in January 2019. The main pedagogical idea was active learning - organisation of educational processes to engage students, encourage them to explore and take initiative, communicate and share ideas and results. Also, students learn how to cooperate and how to use information and communication technologies consciously and for educational purposes.

The ideas emerged in the process of creating a new educational institution in the city, using the experience of educational change from Gymnasium nr 1 in Gdynia. In this project, Gdynia City Hall, Microsoft Poland and a number of technological partners were involved such as – Dell that delivered free laptops for most of the teachers, Photon Education that gave robots for lessons and Skriware that gave 3D printer and robots.

Flexible/innovative learning environment

The school building is a new one (opened in September 2019). The main goal was to design a space that corresponds to various needs and educational situations with particular emphasis on access to technology and project work.

The classroom space is flexible to allow various forms of educational activities. The school's philosophy of work follows a Triad concept: individual work, group work, and working with a mentor – therefore the school space is intended to serve a variety of educational forms and needs, engaging students in the learning process, stimulating development of their competences.

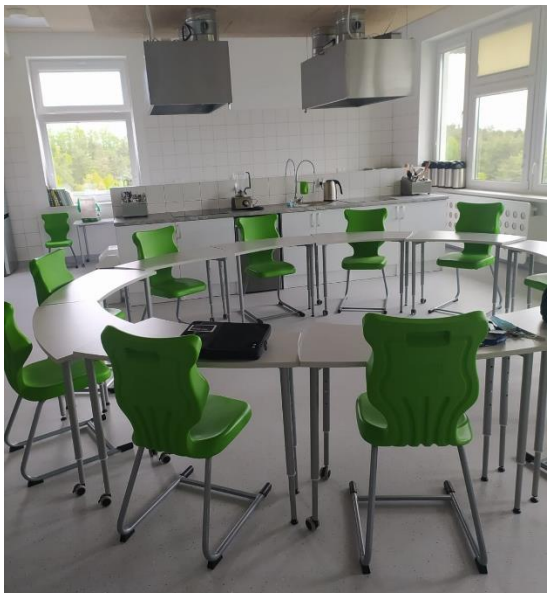
The whole school was designed from roots with the relational education in mind – modular desks, rooms for project work, Wi-Fi access everywhere, interactive whiteboards in each classroom, laptops for teachers, modular desks, digital devices (tablets) available for students, acoustic panels in all areas of school. The common spaces were designed to facilitate communication and interaction between students and teachers. There is also a teamwork room for teachers and a cooking room for students. The library was design to offer place for activities run in small groups of students.

Student-centred pedagogy

The majority of the secondary school staff had already been developing modern working methods focusing on engaging students, so the new space was designed to provide project work, including STEM, the use of technology in educational processes, including on-line meetings with other students and experts and the creation of open educational resources.

The new space is helpful in enhancing project work, use of technology and interdisciplinary activities. An important aspect was to plan a space for teachers' project/workshop activities, so they could learn together and work out new solutions. Also, the location of school in the suburbs surrounded by forest made individual teachers decide to work with students outdoors. A lot of educational projects is going on in the surrounding areas.

Another interesting classroom is the cooking room, where practical classes are held focusing on developing independence, teamwork based on different ideas – cultural, molecular chemistry, foreign languages or mathematics.



Flexible learning environment is used by teachers and students in many educational contexts, for instance during international projects (e.g., Erasmus + "Nature, Traditions and Identity in Youth's Visions", Skype and Teams in the Classroom, Global Learning Connection, Students'

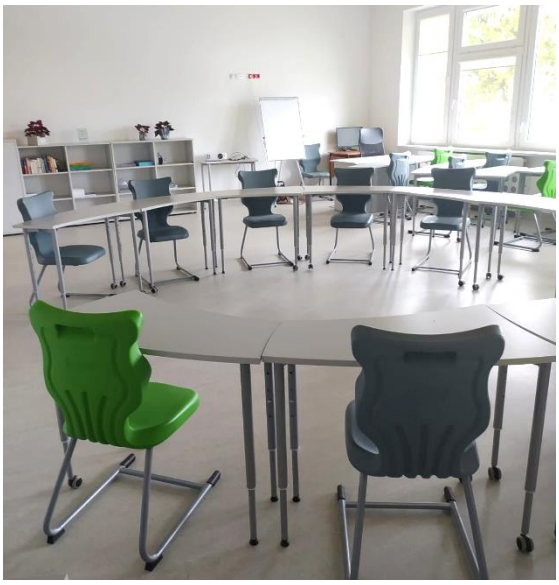
Exchanges); Theme School Days (e.g., Foreign Languages Day, Day of Science); project-based learning (e.g., computer science using 3D printers, robots, programming). School spaces facilitate students' cooperation, and developing relationships, teamwork, cultural awareness, language, and IT skills.

> ***"Spreading your knowledge and changing spectrum of views enables to cross the borders of methods and styles in teaching. It seems hard sometimes and this is a time-consuming effort but once you achieve new competences you know it was worth of it."***
> Anna Leszczynska, English Teacher

Use of technology

There is open access to the Internet for students in the school, each classroom has an interactive board, most of the teaching staff have laptops. Students can use smartphones as well as laptops from the computer labs and the school library. Both teachers and students have accounts on Teams and Office365 and also use a wide number of applications for educational purposes.

The process of adopting technology in a reflective way took several years, which resulted in the growth of a group of teachers who became Microsoft Innovator Educator Experts using a variety of digital tools. Today, some teachers train educators from other schools showing them how technology can be used in everyday work with students to develop their competences and empower their knowledge and self-consciousness. The school cooperates with a lot of technology partners, mainly with Microsoft (as Microsoft Showcase School), Polish-Japanese Academy of Information Technology and Dell. Partners provide practical knowledge (know-how) and propose interesting cooperation projects for students.



The school is the organizer of the Pomeranian Hackathon for Students. The teacher-leaders of technology shared the idea of STEAM with other institutions and their teachers and students and the Pomeranian School of Exercise, the organisation being a leader of change in the region, shared knowledge of teachers how to build a modern workshop (using engaging methods of work and digital tools).

Impact

Benefits

- Increase in staff expertise,
- Increase in students' engagement in educational processes,
- The school is a local leader in innovative pedagogy,

The school has been in a process of change over the last few years which has included the creation of FLEs and the use of technology, thus changing the culture of a growing number of teachers. It is also important how the leaders of change – teachers – willingly share their experience inside and outside the school or got engaged in local and international projects. The process of involving the teachers and students in designing a new school and its FLE helped to build real culture of participation, increased agency of people, generated discussion on role of education and best ways to learn and teach. Very special and unique in Secondary School No 17 in Gdynia is the spirit of innovation built on such foundations as co-operation, communication, problem-solving and evaluation.

Challenges

- Inclusion of school staff in the idea of innovative pedagogy and using FLE to engage students in the process of active learning instead of traditional model in the context of preparing to final exams
- Quality of purchased furniture is not high (an effect of a complicated tendering process which resulted in selection the cheapest rather than best option) that causes problems and difficulties in using it properly to create flexible spaces. It is an important message for any public schools – to learn on experience of other schools.
- Development of reflective use of technology in education – too many tools and apps generate discussion on what is good, needed and effective (there is a risk to focus on technology itself instead of focusing for educational purposes).

Images provided by Liceum Ogólnokształcące 17 Secondary School

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