General and Professional Education
1/2016 pp. 46-52
ISSN 2084-1469

LIFELONG LEARNING IDEA IN ARCHITECTURAL EDUCATION

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Abstract: The recent advances in IT and technology are forcing changes in the approach to educating society. In the 20th century, LifeLong Learning was understood as educating adults in order to improve their occupational qualifications. LifeLong Learning allows the needs of the present-day world to be addressed through providing the individual with education at every stage of his/her life and in various forms.
The search for a new model of teaching architecture is a challenge. The extent, to which the new method has been successful, can be verified in practice. This paper discusses selected forms of child and youth education which are consistent with the idea of LifeLong Learning.

Keywords: LifeLong Learning, LLL idea, education in architecture, architecture, spatial design.

Introduction

The social and economic development programme known as the "The Lisbon Strategy," which the European Union adopted in 2000, forced changes in the approach to educating society. This was caused mainly by a combination of rapid technological growth, which has come to be known as an IT and telecommunications revolution, as well as demographic/social changes and advancing globalization. The programme ended in 2010 with a failure to achieve its goals, leading to the adoption of *Europe 2020*[1]. This strategy has the additional aim of stimulating economic growth with its main focus being on a knowledge-based economy. The *Europe 2020* strategy extends the LifeLong Learning idea to include children and teenagers, which is expected to positively impact society's development and enable it to align with the ever changing conditions, in which it functions.
The LifeLong (LLL) idea is not new. In Poland, it has existed for years under the label of practice-oriented "continuous learning" and has been addressed to those wishing to improve their occupational qualifications or re-train.
Nowadays, the LLL idea has become a goal in itself. It is universal in approach and inclusive of people of all ages, with a student-oriented approach and emphasis placed on developing creative thinking and teamwork. Education consistent with LLL must ensure "continuity of learning in various places, forms and stages of education"[2]. In its present-day shape, LLL consists of three dimensions: vertical education, horizontal education and in-depth education[3].
Each of the above-mentioned dimensions refers to a different aspect. For example, vertical education concentrates on school education at all its stages, from kindergarten to college. Horizontal education deals with informal, extracurricular education provided by educational and cultural centres. In-depth education focuses on a lifestyle based on a continuous learning process, which may have a hugely positive impact in terms of increased knowledge, better self-esteem or the ability to cooperate in an outspoken and creative manner.

[1] *Europe 2020. A European Strategy for Smart, Sustainable, and Inclusive Growth,* adopted by the European Commission in Brussels in 2010.

[2] The prospect of LifeLong Learning. Appendix to an Act of Parliament, Warsaw, 2013, [4] p. 48.

[3] Lifelong Learning – society's way to knowledge, still unappreciated in Poland.

Architectural education

Architecture[4] is defined as the art of spatial design. As a field of science, architecture lies at the intersection of art and the construction industry; it is at once the science and art of design, construction and erecting buildings and other spatial structures. Its concerns also include organizing space utilized by humans. *Architectural education*[5], on the other hand, is understood to involve spreading spatial awareness, spatial identification, as well as increasing the appreciation of spatial aesthetics. Just as any other kind of education, architectural education is a process, in which knowledge is passed and processed gradually. The aims of architectural education are mainly to develop manual and creative skills, stimulate cognitive curiosity, inspire to discover new areas of interest in architecture and spatial planning, and promote a civic attitude. At the same time, it is important to bring it home to those involved in the space-shaping process – creators and their audiences alike – to what extent they can impact the surrounding world.

Based on other countries' experience[6], it has been shown that questions related to spatial education should be introduced as early as possible, preferably at the beginning of primary school. If children begin to learn about space early enough, they are more likely to understand and utilize the same space better as adults. The research on architectural education aims to address the following issue: how and with what tools can we teach children about the surrounding space? How can we enrich the school curriculum through interdisciplinary efforts to combine architecture and spatial management with the arts, science and media in such a way as to make architectural education effective as a universal system? The research also attempts to tackle the question of how to shape space and who influences the way it is shaped, how to protect it and how to help children understand the idea of sustainable growth and human impact on the natural environment?

All these issues indicate that architectural education is a process which must take time. The time should be long enough to produce a conscious user of space who takes responsibility for his actions. The basic idea of LLL, which postulates continuous and systematic education in various forms and at various stages of education, proves to be correct.

How should we conduct architectural education classes?

It is possible to increase a person's appreciation of the surrounding space at every stage of education. This is to be achieved through educational methods and tools used in teaching children and teenagers and oriented towards perceptiveness and creativity.

The architectural education for children and teenagers may be integrated into various activities. The research has focused on a number of such activities, evaluating techniques of class instruction, as well as methods of communicating and enforcing knowledge and skills.

The first stage of education is obviously primary school education. At this stage, the national curriculum provides for activities related to the perception and reception of space around us. These activities are taught as part of natural science, mathematics, history, handicraft, art, and form tutor period. However, teachers lack the skills to give proper focus to such activities in the classroom. The remedy is to introduce, as part of another school subject, architecture workshops hosting an architect or an adequately trained person and conducted with a selected form in a primary school. This would ensure that accurate information is being taught rather than stereotypical notions about aesthetics and architecture (Fig. 1).

It is possible to continue architectural education throughout the lower secondary school level thanks to the *Space shaping* programme. Developed on the basis of its Irish counterpart, it is recommended by the Republic of Poland's Chamber of Architects. The publication consists of self-contained lessons, each of which is divided into 3 parts (Fig. 2). The programme has been adjusted to the Polish realities.

The programme should be implemented in extra lessons which go beyond the scope of the core curriculum. The district division of the Chamber of Architects is ready to provide any information and assistance during the classes.

[4] Architecture – "colloquially: the art of designing and shaping structures; a field of science and knowledge which organizes and shapes all kinds of spaces (that is, not only structures) into such forms as are necessary to cater for people's material and spiritual needs." [6], p. 12.

[5] Architectural education is identical to the following terms: spatial education, environmental education, landscape education.

[6] The most developed system of architectural education has Finland.

Fig. 1. *Architectural styles* workshops conducted as part of history and art classes in the 4th form, Primary School 12, Gdańsk (P. Marczak)

Fig. 2. *Space shaping* class, form 3A, Lower Secondary School in Malbork[7] (E. Marczak)

Fig. 3. A class for a form specializing in mathematics and architecture in Gdańsk Autonomous High School[8] (E. Marczak).

[7] Lower Secondary 3 in Malbork has had a form specializing in architecture since the 2013/2014 school year. Now, the third year is in progress with plans for further recruitment next year. The forms specializing in architecture are under the patronage of the Gdańsk University of Technology's Faculty of Architecture. The classes follow a unique syllabus based on the educational programme *Space shaping* recommended by the Republic of Poland's Chamber of Architecture.

[8] Forms specializing in mathematics and architecture in the Autonomous Gdańsk Secondary School are under the patronage of the Gdańsk University of Technology's Faculty of Architecture.

At the secondary level, education is usually specialization-oriented[9]. Nowadays, secondary schools offer various specializations, including especially in mathematics and architecture or similar. Attendance in such a form is usually connected with the students' planned educational choices after secondary school. The opportunity to pursue such educational choices is available to the residents of large cities with colleges providing courses in architecture and spatial planning.

Many more opportunities are provided by extracurricular education, i.e. educational and cultural institutions other than school, whose purpose is to supplement the national core curriculum. These places offer more freedom in pursuing original teaching programmes and innovative methods. However, even here, any activities related to aesthetics are limited to producing stereotypical two-dimensional drawings. This is usually as a result of badly taught art classes in primary schools. The architectural education overcomes this problem by stressing spatial expression and promoting abstract thinking. This is exemplified by architecture workshops for children aged 6-13, offered by the Gdańsk University of Technology's Faculty of Architecture[10] (Fig. 4 and Fig. 5).

The availability of computers and the Internet allows the use of modern technology in informal education, a case in point being the educational project *Space Around Us*[11], which concentrates on specific ideas promoting the knowledge of landscapes and appreciation of space, with special emphasis on the role of social education in spatial planning. Sets of practical tools have been prepared for teachers and educators to use as an inspiration in their classroom time on the spatial education. The subsequent steps in the project were to edit and publish an illustrated children's dictionary entitled *The ABC of Space in Pomerania*[12], launch a virtual platform at www.przestrzen.eu, organize contests for teachers and children, hold conferences for teachers, culture educators and present on-line trial lessons.

In its original digital version, the dictionary *The ABC of Space in Pomerania* was a database of entries for the platform www.przestrzen.eu (Fig. 6 and Fig. 7). The dictionary is interactive and capable of being extended. The second version, in paper form, was published[13] in 2016 together with a CD with didactic materials to be used in class throughout first two stages of school education[14]. The publication is available free of charge for schools based in Pomeranian province, mainly primary ones, who are interested in obtaining it. The dictionary is intended for all those whose interest in the surrounding space has been awakened by a growing awareness of architecture.

The various forms of educational activity presented here, along with the diverse ways to teach them in practice, point to the numerous opportunities for architectural education. The conventional rote-learning style is useless here, as this type of knowledge cannot be learnt by heart, meaning that children cannot be quizzed or tested. It is an interdisciplinary, integrated field with the aim of encouraging children to use their knowledge to solve specific problems in mathematics, history, natural science or art class.

[9] This applies to forms in secondary schools with general specialization.

[10] The project *Architectural Educator,* active as of the 2011/2012 academic year, aims mainly to spread the knowledge of architect-ture and spatial planning, foster architectural awareness and identification in schoolchildren based on a new curriculum, develop children's manual skills and creativity, arouse curiosity and inspire to discover new areas of interest in architecture and spatial planning, as well as propagate the idea of LifeLongLearning and promote the Faculty of Architecture at the Gdańsk University of Technology.

[11] The educational programme *Space Around Us* is provided by the Baltic Culture Centre in Gdańsk, the Faculty of Architecture of the Gdańsk University of Technology, the Pomeranian Voivodeship Office in Gdańsk, The Centre for Teacher Education, The Centre for Ecological Information and Education in Gdańsk, The Pomeranian Association of Natural Reserves in Słupsk. The project is under the patronage of the Pomeranian District Chamber of Architects. The progress of the project is documented on www.przestrzen.eu.

[12] The dictionary in electronic form is available on: http://przestrzen.eu/wp-content/uploads/2013/05/S%C5%81OWNIK-A_Map.pdfand http://przestrzen.eu/wp-content/uploads/2013/05/S%C5%81OWNIK-Mat_Z.pdf
The dictionary was published in February, 2013.

[13] The dictionary was published by the Pomeranian District Chamber of Architects.

[14] The illustrations in the dictionary were hand-drawn by first-termstudents of the architectural design course at the Faculty of Architecture of the Gdańsk University of Technology in the academic year of 2012/2013 under the supervision of Elżbieta Marczak and Piotr Marczak.

Fig. 4. "Architecture Educator" workshops on design (P. Marczak).

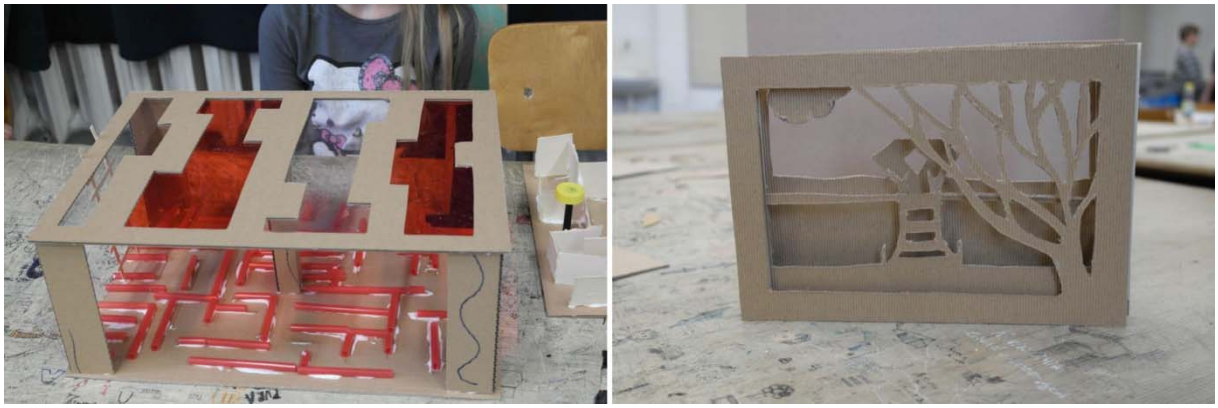

Fig. 5. "Architecture Educator" workshops on design (P. Marczak).

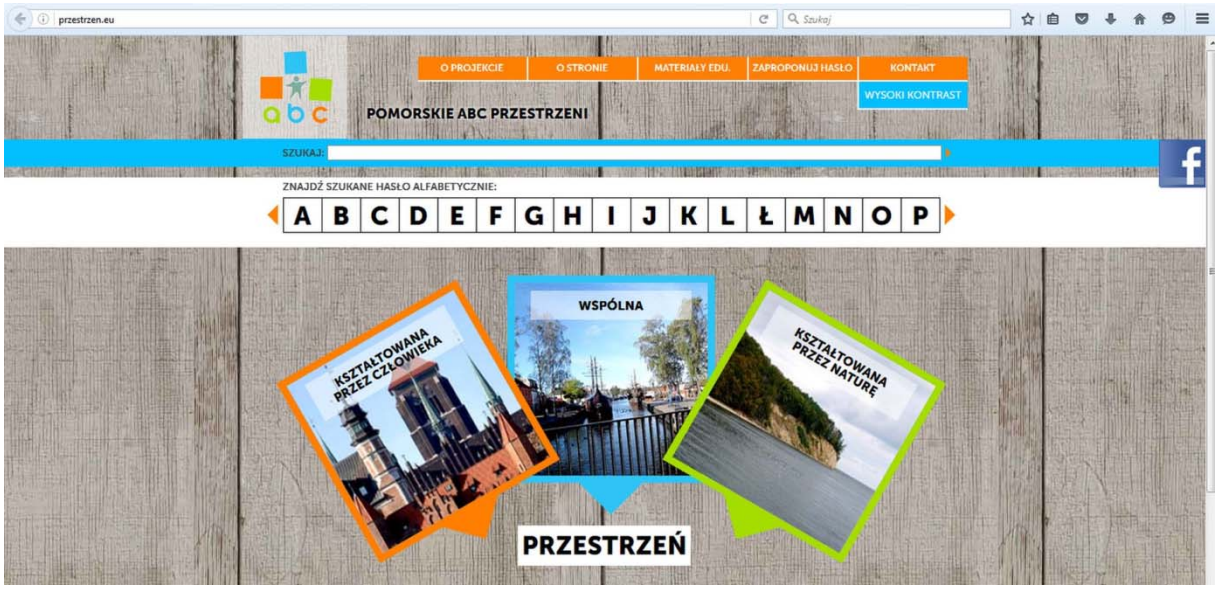

Fig. 6. The main page of the platform www.przestrzen.eu (by J. Porańska).

Fig. 7. The dictionary *The ABC of Pomeranian Space* (by E. Marczak).

A model for spatial education must feature cooperation between children, the architect and the teacher. Each of the participants makes a different contribution, allowing children to enjoy studying and piquing their curiosity. The architect's task here is to provide the knowledge of built-up space as based on human needs. The teacher knows the children's intellectual and perceptual ability, as well as their learning patterns, which is helpful in preparing a class scenario.

Conclusions

The document *The Polish Architectural Policy*, written by the Polish Council of Architecture, the Association of Polish Architects, the Society of Polish Spatial Planners and the Republic of Poland's Chamber of Architects outlines a blueprint for a programme of architectural education generally available to all.The programme should be conducted as a part of standard or extracurricular classes by adequately trained architects, teachers, culture animators. It is hoped that the programme will benefit the curricula of primary and secondary schools.

The idea of LLL in architectural education allows individual development in two aspects: firstly, as open and generally available education, it increases people's appreciation of the surrounding space early on. Besides, it allows children to develop a habit of learning and seeking out new interest areas. It is instrumental in developing a sense of the social identification, of belonging to a region or country and promotes a civic attitude.

It also provides those interested in architecture with the opportunity to enhance their skills and creativity. Creativity is a source of innovation and, by extension, the social and economic well-being of our country.

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