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NON-FORMAL EDUCATION IN ARCHITECTURE: LATVIAN EXPERIENCE

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Abstract. A wide selection of informal and non-formal learning options has been developed during the last couple of decades by many schools of Architecture and non-educational bodies to accumulate creative potential of students and give them the opportunity to express themselves in alternative learning environments. These options include summer schools, short-term brainstorming actions, competitions, and other activities focusing on interdisciplinary approach, teamwork and intense discussions with professionals from various fields not directly involved in the formal education process.

Considering high popularity of non-formal learning activities and many students involved, it is important to evaluate the respective experience to estimate whether and how abilities and skills acquired through non-formal learning could benefit to those requested by the formal education programmes.

The paper discusses the role and methods of non-formal education in Architecture with an aim to identify particular goals achieved using each form of learning. The case study presented in the paper is based on more than 12 years' experience accumulated by Riga Technical University, Faculty of Architecture, in organizing non-formal educational courses for the students of Architecture and the related fields considering the experience students gained participating in the activities organized by themselves or other parties.

Keywords: non-formal education in architecture, project-based approach, learning by doing, collective creativity, teamwork.

Introduction

The interaction between university schooling and out-of-school activities in architectural education has been a focus of extensive discussion in Europe at least in the last 15 years (EAAE, 1978–2018; ENHSA, 2002–2014). Being well coordinated and administered at the international level, the common educational space in Architecture sets common training criteria and outcomes while allowing schools to choose freely the definite means of achieving their educational goals. Such an approach both respects the cultural background and diversity of schools and provides for the preservation of the regional shape-forming practices, at the same time ensuring common understanding of the principles of sustainable environment development in the contemporary context.

The debate on what an up-to-date architectural education in Europe should look like has been carried out both within the European Network of Heads of Schools of Architecture and the European Architectural Education Association; it has been continued within various other platforms.

While theoretical borders between formal, non-formal and informal forms of learning have been clearly defined (Gerber, 2001; Pankowska, 2017), in practice they may not be so distinct.

Non-formal learning in Architecture is an open set of activities and methods aimed at increasing the level of person's skills and competences through participation in various kinds of out-of-studio activities – summer schools, plenaries, workshops and events of a similar nature. Non-formal learning is applied both in the development of higher education and within the life-long learning projects. According to the existing indicators, all parties involved in the education process recognize that means of non-formal learning play a significant role in the personal development of students as well as promote interaction between school and practice.

Goal and objectives

The study is aimed at the evaluation of the necessary resources and the results achieved within non-formal

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education activities in Architecture by the involved parties considering organizing and supporting experience accumulated by the Faculty of Architecture of Riga Technical University in the previous 15 years – from 2003 to 2017. Using viewpoints and opinions of the representatives of the involved parties as the comparative instrument, the results are summarized inductively expanding learning experience beyond the traditional study environment. The research question is how methods and approaches of non-formal education may benefit architectural education.

Methodology

Qualitative data analysis was used as a research method. Qualitative research methods provide an opportunity to investigate the causes and consequences of choosing either form of learning. By obtaining qualitative research data, the problem is analyzed from the perspective of the participants, taking into account their experiences, attitudes and opinions, which provide direct and immediate information. To investigate the interests and attitudes of the representatives of the involved parties in the non-formal educational activities and to evaluate the outcomes, 33 semi-structured interviews were conducted during January 2017. In order to get a comprehensive overview on the research topic, the opinions about non-formal education were collected in five groups of interviewees: participants in non-formal architectural activities, organizers, representatives of the higher education sector, clients (municipality representatives and developers) and associated experts, and architects. From each group, six to eight representatives were nominated, selecting participants with different background and experience, duration of active work and duration of engagement in the activities of non-formal education.

Background

A professional architect is expected to possess a wide range of skills and competences in composition, formation, function, engineering, graphics, teamwork and business. However, mostly due to limited length of studies, it is not always possible to integrate acquisition of all competences and skills into the regular study programs. In order to gain versatile experience and become familiar with the industry, more and more students and even practicing architects take part in non-formal learning activities – summer schools, plenaries, workshops, etc. to improve their competences and skills. In this process, they do not only acquire valuable knowledge, but also establish a wider range of contacts and develop their ability to jointly design and implement pop-up projects in a relatively short time.

In contrast to the formal studio-based education, non-formal education is an organized and purposeful process of voluntary participation, focusing on teamwork geared towards both individual and collective development, adaptability and maximum accessibility (McMahon & Kiernan, 2011; Pankowska, 2017). In non-formal education,

traditionally there is no hierarchy between participants, discussions and diversity of viewpoints are welcome and usually there is no formal evaluation of the results. Teaching methods in non-formal education include teambuilding, brainstorming, learning by doing, and presentation (Polatoglu, 2012). Non-formal education in Architecture is not strictly categorized into binding forms, nevertheless, up to date several forms of activities have been designed and developed, mainly differing in terms of duration and focus on the development of either practical or theoretical skills of the participants.

The first significant non-formal educational activities in Latvia started to get implemented after the collapse of the USSR in the late 1990s, with the participation of the local students in the international summer schools organized by the European Architecture Students' Assembly (EASA). This student initiative project started in Liverpool, U.K., in 1981, and it is held annually ever since. Architecture students from all over the world gather within a creative two-week session with a wide choice of master classes and workshops. Each year the event takes place in a different country after the national representatives have agreed on the place and theme of the next summer school. Since this activity in Latvia started before its joining the EU, it somehow demonstrated the ideals and advantages of cooperation in the united Europe.

1. Case study: non-formal education in architecture in Latvia

1.1. Forms of non-formal education

Summer school is the practice-tested and recognized form of non-formal education in Architecture. Usually, it is a one or two week long theoretical and practical event with a specifically defined result to be achieved. One of the most valuable features of summer schools is the possibility to overview and experience all stages necessary for the design and implementation of the project. The range of activities includes preliminary research and idea generation process up to the presentation of work results through consultations with experts, theoretical lectures, brainstorming sessions and seminars. In some cases, the result may include practical implementation of the idea (Figures 1, 2, 3). Public presentation of the final works and the arrangement of the exhibition are a very important tradition in the architecture of summer schools (Figure 4).

Taking into consideration positive experience of participation in the EASA summer schools as well as in the summer courses organized by universities in other countries, Riga Technical University (RTU) introduced the first home-based project, the *RTU International Summer School*, which for the first time was held in 2003. The initiative focuses on the development perspectives of the UNESCO listed Riga Historical Centre (Ozola, 2012; RTU Summerschool, 2012–2016) and is ongoing till the present year. The summer school includes 1.5–2 weeks long series of lectures and workshops focusing on either



Figure 1. International Summer School 2012:
Eventology. Tutors: Niklavs Paegle, Thomas Randall-Page,
Theodore Molloy.
Photo credit: Ugis Bratuskins



Figure 2. International Summer School 2013:
Story Tower. Tutors: Niklavs Paegle, Thomas
Randall-Page, Theodore Molloy.
Photo credit: Ugis Bratuskins



Figure 3. Workshop *Tree House* 2017. Presentation Session.
Photo credit: Ugis Bratuskins



Figure 4. International Summer School *The Big Reset on
Neighbourhood Design Series 4*, 2017:
Islands in the stream. Presentation Session.
Photo credit: Ugis Bratuskins

theoretical or practical outcome. The participants and tutors are selected by the organizing committee of the event based on the evaluation of the applications, portfolio and motivation letters of the interested persons from different countries. Since the participants and tutors represent a variety of cultural backgrounds and experience but the problems presented and the tasks to be solved within the workshops are based on strictly local issues, the results of the summer schools have not only got recognition on the local scale but also received positive mention by several international architectural media outlets (Davis, 2013; Mpotokwane, 2013).

However, apart from good references and highly enthusiastic involvement of the participants of the summer schools, there is also one significant obstacle. Participation in the summer schools is an expensive experience mostly

because of a comparatively long duration and travel costs. This leads to a strongly limited number of participants, and not all students willing to take part in the activities can manage their time and financial resources to join the summer schools. Therefore, more flexible forms of non-formal educational activities were sought for, and this resulted in the launch of *the Plenary of Latvian Architectural Schools* organized by the Latvian Association of Architects in cooperation with RTU, Latvia University of Agriculture and Riga Construction College. This initiative was started in 2006, and since then it takes place every year involving students from all schools of architecture and landscape architecture in Latvia. Focused on the needs of the local students and held in one of the partner universities, it turned out to be very attractive for students, professionals, and academic staff. Shorter duration – up to five days, no addi-

tional costs and practically similar program – teambuilding, brainstorming, lectures and workshops – allowed reaching many goals characteristic of summer schools, but at a more modest scale.

In the following years, several new sectoral initiative projects such as *Demola*, *Schoolchild-Researcher-Town Dweller*, competition of creative ideas *Collective Work for Good Place*, *Courtyard Project* and several municipal architectural plenaries for students spread out, currently reaching an unprecedented level of activity and offer. Relatively short pop-up workshops, creative competitions and other activities have developed and got wider recognition, making non-formal learning more accessible and organized throughout the entire year. Being repeated for several years, they create a wider platform for public events. This allows attracting significant media coverage as well as actively involving wider groups of society.

In 2007, the activity of non-formal learning in Architecture strongly influenced by public opinion was started following the format of *PechaKucha* 20x20 performances and conversations, offering 20-image slideshows with 20 seconds per slide on various topical issues. The project continued until 2014 and had a positive effect on the life-long learning practices in Architecture.

In the recent years, the up-to-one-day format of the creative competition *Geniators* has come to life. It follows the format of the architectural sketch practiced at schools, allowing participants working in a group to create good quality material for the presentation of a project in a few hours. This activity is particularly relevant for working young people, who may find it difficult to participate in longer activities due to their everyday office work.

1.2. Involvement of stakeholders

Architects from around the world are often attracted to supervise students' work in the summer plenary sessions. Attraction of specialists from the industry is a common practice in organizing non-formal learning activities, as well as practical and theoretical events, including seminars and workshops. Opportunity for collaboration and possibility to expand the network of contacts is usually mentioned by the participants as one of the main reasons for enjoying the summer schools.

The framework of workshops initiated by local municipalities, for example, in Preiļi and Valmiera, is a relatively new scenario, and free composition of teams is the feature that has been positively recognized by students and tutors alike. Here, each participant is given time for brief presentation of the intended area of work and the view on the expected result, further floating teams of participants are created based on common idea-centered grounds and assessment of individual competences. This teambuilding method allows each participant to be involved simultaneously in several teams, each performing a task that is most appropriate in terms of competences, for example, drawing pictures, creating a spatial model, interviewing people or working with a model. Such result-oriented work is

focused not so much on the competition and interests of each team; it rather streamlines all efforts towards achieving maximum results. Similar to real life conditions, participants are given the opportunity to choose their "job" and take on a specific role that best suits their interests by defining their own skills and responsibilities. The more groups and ideas one participant joins, the more likely it is that one of these ideas eventually may be noticed or implemented. Thus, each participant feels oneself as a part of a larger team, not a defender of competing ideas.

1.3. Teamwork in non-formal education in architecture

With the development of various forms of non-formal education, more and more attention is paid to teamwork and its role in achieving the goals of a specific activity (Oakley, 2004). Within the formal education, teaching of design is mostly focused on the individual (McMahon & Kiernan, 2011) employing a master-apprentice approach, the design studio being the centre of the design process. However, contemporary architects must be able to work with diverse stakeholders. Thus, teamwork is of major importance because groups of individuals can work together in order to address problems they cannot solve on their own (J. Stempfe & P. Badke-Schaub, 2002).

The research results on teamwork effectiveness show that there is a negative correlation between the level of individual knowledge of the team members and the overall level of teamwork efficiency. Good teamwork skills or well organized internal communication may raise the quality of the result, while poor teamwork may offset even the higher level of individual competences. Moreover, according to the results of the semi-structured interviews, significant part of respondents note that teamwork is a highly valuable skill, which may be best realized through non-formal means of education due to the involvement of a larger number of participants pursuing achievement of common goals. Due to the limited time allocated to individual activities, good teamwork skills appear to be of particular importance within shorter workshops.

2. Data and analysis

The framework of the semi-structured interviews was based on the theory of planned behavior and other information. The interviews were held in person or by telephone interviewing.

During the interview, the following key questions were asked:

- how long your experience with non-formal education in Architecture is;
- why you participate in the non-formal educational activities in Architecture;
- what has been achieved so far and whether you are satisfied with the results achieved so far;
- who motivated you to be re-engaged in the activities like that;

- what should be changed in the practice of non-formal education to make it even more attractive to you;
- do you see the possibility of linking formal studies in Architecture with the activities of non-formal education.

Participants were free to expand the answers, revealing their own experience in the field of non-formal education in Architecture.

Most respondents mention the collaborative format as one of the main reasons for participating in non-formal education events. Respondents list the following motivating aspects for the participants:

- expanding contact network,
- experiencing teamwork,
- sharing experiences,
- wider view on the perspectives of architecture,
- the more people and opinions, the better,
- co-operation with the public.

Defining the achievements of non-formal education in architecture, respondents notice:

- interdisciplinarity,
- exchange of ideas and discussions with people holding other opinions,
- networking and socialization,
- communication with local inhabitants and other stakeholders,
- comprehensive view of the discussed issues.

The methodology of distribution of competences in teambuilding for fulfilment of creative tasks in non-formal education plays a significant role and may be divided into three main directions depending on the impact the organizers and participants have on the teambuilding process:

- teams created by the organizers,
- random distribution of teams,
- free distribution of teams.

The initiators and organizers of events in their interviews often mention that after participating in non-formal learning activities, students successfully continue communicating and participating in professional architectural contests and sketch projects both in Latvia and abroad. Many respondents from the teaching staff group also mention that students actively involved in non-formal learning activities achieve significantly higher results in formal education assignments.

3. Findings

Summarizing the responses received from the interviewees, the activities in non-formal education may be ranged as follows (Table 1) with regard to the duration of the events and the achieved goals.

In case the teams are created by the organizers, distribution of participants in the team is done either considering the schools represented, or according to the level of experience or knowledge of the students. This approach is used in the *Latvian Architectural School Workshop* to establish student teams uniting representatives of all higher education institutions. In the facilitated forms, students are allowed to change their teams if the overall ratio of higher education institutions or representatives is maintained. The presence of one international or delegated representative tends to be compulsory in competitions. This principle is also widely used in the *Demola* project, where interdisciplinary student teams solve tasks prepared by the customers, providing each team member a set of skills and competences needed to solve a particular task.

In the random distribution of teams, groups of actors are organized according to the lottery principle. This principle is applied relatively often by event organizers, especially if activity participants are not familiar with each other. Such principle is quite widespread in non-formal education and is often used in the organization of summer schools and workshops, since it does not require additional efforts from the organizers and guarantees similar team sizes in terms of the number of participants. This method can also be complemented by an option to group members around a particular mentor or leader; it also enables students to change their individual team members within the established groups, while maintaining the total number of people in the team unchanged.

The principle of free distribution of teams by definition allows participants to create their own groups according to their preferences and without additional involvement of the event organizers. This approach can be combined with the grouping of participants around a particular mentor, which allows creating teams in a maximally flexible way. However, such an approach to teambuilding often leads to establishment of teams of different size. Giving students

Table 1. Range of non-formal learning activities

Duration	Goals	Methods	Forms of theoretical and practical implementation
Express activities (up to 1 day)	Creative pop-up competitions	Teamwork	Practical workshops, master classes
Short-term activities (1 to 5 days)	Creative competitions, workshops	Teamwork, brainstorming	Case studies, lectures, practical workshops, master classes
Medium-term activities (1 to 2 weeks)	Workshops, summer schools	Teamwork, brainstorming, discussions, practical modelling	Research, case studies, lectures, practical workshops
Long-term activities (more than 2 weeks)	Sectoral initiative projects	Combination of formal and non-formal learning methods	Practice-oriented activities

the opportunity to coordinate teambuilding by themselves, the organizer loses control over the process, and the most capable students often use this situation to form working groups by mutual recognition, excluding other participants from the process. Due to the above-mentioned reasons, it is strongly recommended that activity organizers take an active role in the teambuilding process.

The choice of teambuilding methodology is not the only determining factor for team performance. The number of participants is also significant in ensuring effective teamwork. According to the results of the semi-structured interviews, the most efficient number of participants in the team ranges between three and seven people. The study shows that the closer the number of participants is to three members, the more effective the overall teamwork is. It is usually more difficult to coordinate teamwork if there are too many participants. If the number goes above seven, the team starts to break. The most persistent teams consist of three to four participants.

Interviews with students and comparison of teamwork within formal and non-formal learning approaches show that the teams created by higher education institutions within formal studies are often less effective and the risk of frequent internal conflicts is higher, while motivation for effective work is more vague than within any of the teambuilding approaches employed in the non-formal learning conditions. Teams created for solving academic tasks are often built on the basis of necessity and therefore instead of enjoying teamwork and its benefits, students are more interested in achieving the results faster with less effort and thus are less focused on improving the process itself in order to achieve better results. This often causes problems within the teams and in longer perspective impedes arriving at the result in the most efficient way. The teams created in higher education institutions often have to start work at full capacity, and there is no time to improve the dynamics of the group itself. It results in difficulties in the introductory or middle part of the process, followed by disappointment resulting in projects of modest quality.

Conclusions

Participation in the non-formal educational activities necessarily complement the formal educational methods by focusing on direct and intensive dialogue with the stakeholders and industry partners thus making positive impact to the development of the future professionals allowing to prepare themselves better for practice as well as to test their knowledge in the real environment.

Inclusive teamwork ensures important benefits of non-formal education that can be reached using the methods aimed at advancing personal potential of each group member, making the overall process more exciting and beneficial for all parties. This promotes interest

and involvement of the stakeholders and significantly reduces the number of dropouts and outsiders. A careful approach to dating activities and teamwork consolidation tasks ensure much stronger teamwork that results in effective interdisciplinary teams with a high level of integrity and strong active core.

Successful non-formal learning activities not only bring enjoyment to the participants and other parties involved but also attract attention of the wider public and media, which can deal with the current problems in an effective way by providing wider publicity and recognition to the industry and the stakeholders at the same time promoting practical implementation of the findings into the real development plans.

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