

Workshop methodology in the curriculum of architectural education

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Abstract

A global challenge for engineering education is the generational change of students. In many cases it can be hard to motivate students to develop their skills, to study. Students are not uninterested; they only need different ideas and methods to get inspired. During the last 7 years students of the University of Pécs Pollack Mihály Faculty of Engineering and Information Technology participated on several international programmes and workshops, where they had to work in a different way. In the first part of the paper the methodology of these workshops will be compared and the personal experience of participating students will be summarized. Different skills can be studied easily in a short period of time during an international program. Students usually learn how to work as a member of a team, their technical language skills can be developed also. The most important aspect is that they are challenged to work interdisciplinary, as the task of an international program is usually related to different scientific fields. In the second part of the paper it will be introduced how the Author tries to integrate the best practices of the international programmes into the curriculum of architectural engineering education in Pécs.

Keywords: *architectural education, methodology, international experience, workshop.*

1. Introduction

It can be experienced nowadays that students are studying in a different way compared to the students who studied 10 years ago. New generations, coming to the higher education institutions grew up using computers and other electronic equipment from their early childhood. One result can be e.g. that they will not choose the library first if they are searching for something but they are looking for information on the Internet. This is not a problem, this is only a change. These students have to learn as early as possible how to differentiate true and false information from each other as it is easy to find both on the Internet. In many cases an interdisciplinary task can help them to understand how a problem can be seen from different aspects. An example for an interdisciplinary project was the broad temporary staircase covered with red carpet in front of the Municipal Theatre in Braunschweig, Germany that was designed by Simona Malvezzi, Wilfried Kuehn and Johannes Kuehn in 2002. [1] The structure was connected to the ball-room of the theatre, and could be assembled and dismantled within two days (see Figure 1).



Figure 1. Festivalzentrum Theaterformen from Kuehne & Malvezzi.

The theatre housed that time a festival for two weeks. The audience could enter or exit the building by using the staircase. The red carpet was a symbol. It presented exclusivity and it served as a visual effect that could be seen from a far distance. On the one hand this was an architectural idea; on the other hand it was also an engineering task, because the staircase was made of the framework of scaffolding. At the same time this installation was also a social action. As a meeting place the structure emphasized the building of the theatre to inhabitants and visitors. Experiences of the last 7 years showed for our faculty how students are behaving in interdisciplinary international programmes and at the same time how their skills are developing during such an event.

2. Methodology of previous programs

In 2006 the company Strabag organized an international program for students of architecture in Vienna. The company wanted to build a new cement-factory in the neighbourhood of Pécs. The tallest object in the planned factory was the cooling-tower that was 96 m high. The question was how this clearly industrial function can be integrated more into the landscape by using architectural solutions (see Figure 2).



Figure 2. Winner project of the competition phase designed by Ders Csaba.

The program was one week long. Students firstly visited several industrial areas in Vienna and in the surrounding where they could see, how architecture can form an industrial function. Afterwards internationally active architects held different presentation about the possibilities of industrial architecture. Students started to develop their ideas that they also presented at the end of the program. As a second phase they had two months to work out the architectural concepts, which were evaluated by an international jury. During this program students had to deal with technological, structural, architectural and also financial aspects. [2]

The Temporary City program was the cooperation of the universities of European Capitals of Culture in 2010. During the three years long program, between 2008 and 2010 students and lecturers from Pécs participated and organized international workshops in the Ruhr-Area, Pécs and Istanbul. Through all three occasions an urban area was introduced to workshop participants. The sites needed a kind of an intervention from one or another aspect. In Duisburg the task was related to the downtown and to the inner harbour. In Pécs students were dealing with the area of the newly designed but that time still not constructed Zsolnay Cultural Quarter. In Istanbul the workshop location was next to the Golden Horn bay, in the oldest dry-dock of the city. All three sites included listed buildings, partially industrial areas and a complex urban situation. During the one-week's fieldwork students in mixed groups got acquainted with the area and made an analysis (see Figure 3).



Figure 3. Students working on their analysis in Pécs.

As a closing act of the workshop they presented their own ideas of intervention from their different viewpoints. In the competition phase students developed their architectural and urban concepts. It was a prescription that the planned idea had to be realizable from a fixed amount of money. All of the projects were evaluated and prized by an international jury. For the students it was especially inspiring that the prize-winning design was executed as a temporary installation in 2010 along with other European Capital of Culture projects. [3] [4]

In the last two years the students from Pécs participated on four Erasmus Intensive Programs (IP). The first two programs were dealing with listed buildings, actually with old castles and castle ruins. During the first program in Slovenia students had to find a function for the Borl Castle [5]. In the second program the task was to integrate the ruins of Massenburg in Leoben, Austria into the everyday lifecycle of the city (see Figure 4).



Figure 4. Ruins of the Castle Massenburg in Leoben.

Both programs started with an excursion to the sites that was followed by a trip to interesting architectural projects in the surrounding. During a symposium students listened to presentations about the history of the castles. At the end of the two weeks programs students presented their first ideas that was evaluated by an international jury. After the workshops students had to develop their design. The final projects were exhibited in the location of the programs. A third Erasmus IP took place in Graz, Austria. Both the task and the methodology was different compared to the first two IPs. Students had to analyse and plan the development of a huge area next to the main train station. The task was really complex. First of all there was a historical water tower standing on the plot, which was a listed building. Because of the neighbourhood of the train station there were strict prescriptions for noise protection. Otherwise students had to deal with local regulations, they had to calculate the estimated cost of the designed development and last but not least it was up to them to decide what kind of functions are really relevant in this part of the city. At the end of the two weeks program the international groups presented only the first ideas that were later developed at home for the competition phase. The projects were evaluated by local experts, representatives of the authorities and of ÖBB (Austrian Railways). It was motivating for the students to work on a really complex task with the hope to win on the competition. The interdisciplinary approach of the last Erasmus IP cannot be compared to the other three programs as last summer in Istanbul the base of the task was a novel. During the two weeks program students firstly had to analyse by mapping two different parts of the metropolis Istanbul. First of all every participant walked around in the area with the aim to recognize something characteristic there. The first impulse had to be presented in 1 minute by showing just 1 picture. Afterwards groups were formed in a way that students who recognized similar elements or happenings in the project area were working together. Secondly the task was to find an appropriate description in the novel that can be connected to the experienced characteristic. Finally they had to plan and build an installation from a certain amount of money. The exhibition should introduce or emphasize the typical element or situation they discovered (see Figure 5).



Figure 5. A mobile staircase designed by Réka Borbás, Alexandre Carpentier, Neslihan Kolancı and Kelly Otter.

The installations were exhibited in the project area for one day and students had to observe the reactions of the inhabitants and of people passing by. After dismantling the installations all of the participants discussed the discovered characteristic with a sociologist and a local architect. [6]

To sum up the different methodological experiences of international programmes it can be said that interdisciplinary work is always a good possibility for students. During their professional career they have to cooperate with other experts having different fields of expertise. In the first program it was good to see how strict industrial prescriptions influence the possibilities of architects. For the students it was good that they had the possibility to visit such industrial areas that they would not be able to visit alone or as a tourist. At the Temporary City workshop series the most motivating fact was that the winner project was constructed in every three locations. In Istanbul the mapping task itself was interesting for the students but also the building process of the installations was inspiring. At the first and second Erasmus IP the quick evaluation at the end of the two weeks program was the real motivation for the students. The program in Graz was different, because this was the task where the circumstances could be really compared to the structure of an international architectural competition.

3. Workshop methodology in the curricula

According to the feedback of participating students some elements of the above mentioned workshop programs e.g. different kind of analytic methods, interdisciplinary tasks, studying during special excursions were really inspiring for them. The experience of the participating lecturers was the same. Even students, who were at home not really motivated, could successfully work on these projects. These were the reasons for the Author to start finding an appropriate way how to integrate parts of the workshop methodology into the curriculum of architectural engineering education. It is not possible to integrate this technique as a whole into the curricula, but it can partially be utilized. It depends mainly on the subject which parts of the workshop methodology can be used during a course e.g. teamwork, special analytic techniques or learning through excursions. It is not so easy to integrate all of these issues at the same time, but at a complex design task it could be possible to utilize workshop technique as a whole. The application of the methodology depends also on the number of students attending the course.

The first trial was a course called Architecture of Pécs, firstly offered only to incoming Erasmus students. Main aim of the subject was to introduce foreign students the especially rich heritage of the city of Pécs. The course consists of some lectures, but mainly excursions to different interesting architectural sites e.g. World Heritage Zone, Expo Center with a special tent structure and so on. Students have to choose a topic from the places that will be visited during the semester, e.g. trade fair buildings. Afterwards they have to prepare a study with examples of similar buildings from their home country. The second task for them is a poster about a place that he or she has visited during the semester e.g. from the Expo Center. It is important that in the poster not only pictures but also a short text written by the student should be included (see Figure 6).

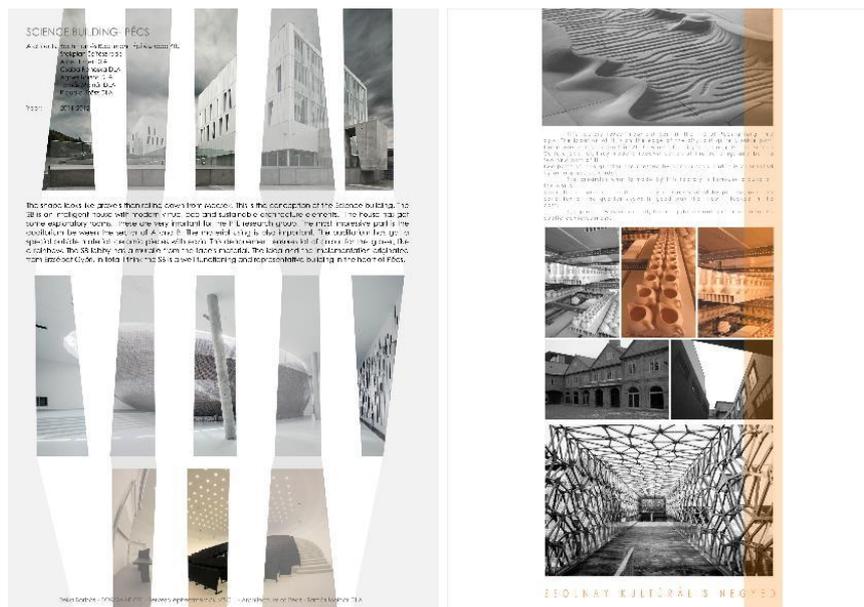


Figure 6. Two posters of the last semester presenting a research centre and a ceramic factory in Pécs. In this text, a student has to describe his or her own opinion about the architectural object. This subject helps students to understand to which elements or parts they have to pay attention by visiting an architectural site. The subject is included in the curricula since 3 years.

The second subject started just last semester, it is called Questions of Contemporary Art. Now it is offered only to Hungarian master students. It will be introduced to students how contemporary art in cooperation with architecture can help to emphasize a problematic situation in a city or to call the attention of people to forgotten or unrecognised virtues (see Figure 7).



Figure 7. First pictures of the students taken from unrecognised elements or problematic issues in the downtown.

The method of mapping and other techniques to discover a part of a city e.g. a technique mainly for children are introduced to students, but afterwards they can decide how to make their analysis about the project area. [7] It is important to show different techniques to the students so that they are able to enjoy also this analytical part of the task. In some cases a playful method, like the one that can be used also by pupils, can really help to increase the motivation of students. In the second part of the semester different artistic ideas, installations will be introduced to students. After the lectures students have to design an artistic object or installation into the project area. Interdisciplinary approach is naturally in the task, as students have to deal with social problems, listed buildings or urban problems. In the first semester the result of the subject was only a study, where not only the analysis but also the designed solution is included. In the future it would be perfect if the best installations could be temporarily executed. The chief-architect of Pécs is interested in the work of students, as there are a lot of urban issues in the city that should be investigated to find out the right solution for existing problems. The Pollack Mihály Faculty is already negotiating with the City Council about the cooperation possibilities.

4. Experiences

Till the last workshop altogether 82 students from the University of Pécs participated on one or more different international programs. From the 82 participants 16 students joined two programs and 13 students three or more programs. The number of students who apply for a participation possibility is increasing together with the number of students who are resuming, applying for a workshop for the second time. This means that students are getting more and more interested in international workshops. From the 82 participants 46 students went abroad to work as a trainee in an international designer office or to study one or more semesters on another university. This shows that more than 50 % of the students were of the opinion that it is useful to see different architectural approaches, to face challenging interdisciplinary tasks. There are three students among the participants who wrote articles in the magazine of the faculty about their experiences on the last three workshops. All of them finished the text of the article recommending international programs to other students. This is also really important as the opinion of a student can be more determining for another student than the official invitation or poster of a new workshop.

The Architecture of Pécs course is attended nowadays not only by foreign students, but from semester to semester more and more Hungarian students are joining the course with the aim to visit places that in some cases could not be visited alone. It is also important for the Hungarian students that they have the possibility to practice technical English language and to see how students coming from different countries are working.

The subject Questions of Contemporary Art is in a developing phase. The result of the first semester was really interesting. Students had to analyse the historical downtown of the city. About half of the students used the mapping method, the other half used other analyse techniques. Students discovered special layers

of the downtown, which cannot be recognised if somebody is just running through the area. The city of Pécs is working now on a pathway connecting two important touristic attractions in the city. Perhaps the next task for the students will be to investigate the area around the planned pathway. It would make sense to find out which historical buildings or elements could be emphasized to the visitors so that they would enjoy not only the two tourist attractions but also the walkway between them.

5. Conclusion

The approach of students is similarly changing as the world and the everyday life is changing around the society. This is a real challenge for engineering education. According to the experiences students of the new generations have to be educated in a different way. If they are motivated they will enjoy studying. The main question is how, how students should be inspired for learning in a changing world. The Author is of the opinion that the methodology used by international programmes and workshops can give an answer for the question of motivation. The two courses in Pécs are trials to integrate interdisciplinary approach and workshop methodology into the curriculum of architectural education.

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