

Participation as an innovative method in architectural education

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ABSTRACT: Slovak University of Technology in Bratislava, Bratislava, Slovakia, provides architectural education, in which potential links are constantly sought for the provision of practice. In this article, the authors investigate an innovative method of teaching architecture and urban design based on the participation of local government, private investors and other organisations. The methodological approach to teaching studio work has been focused on design based on consultation between teacher and student. Architecture is becoming a multidisciplinary science focused on the real needs of society. The teaching process attempts to reflect this. Taught typology is confronted with the practical requirements of real investors, municipal representatives or citizens, so that their requirements are represented in the urban-architectural proposal. This way, all stakeholders are represented in design. In this article, the authors present the methodology of participatory design on different urban-architectural studio works with various stakeholders. The results highlight the effects of participation in the university education process.

Keywords: Participation, architectural education, design studio, motivation, practice

INTRODUCTION

In his text on building culture Professor Róbert Špaček says ...*Architecture in the size of the building or city must be wished to remain* [1]. To be so wished, it must be designed in the spirit of the place, reflect the nature of society and the context of the environment. How should such architecture be designed? How should an architectural design be taught in studios, so that a student is adequately prepared for the profession of architect? Is the relationship between student and teacher adequate to the needs of the practice? These are basic research questions in architectural education at the university.

The aim of education is a student who is able to offer solutions that will include the 5Es - they will be economical, efficient, ecological, ethical and aesthetic. A set of interconnected courses serves to achieve this goal. Its foundations are studios of urban-architectural design [2].

The educational process should prepare students for real architectural practice, and it should not favour the production of architects who will not have contact with real assignments. For this, it is necessary to know not only architectural practice, but also to realise the requirements of the investors. These requirements naturally depend on the site and may change over time. Therefore, the university environment should be one that nurtures close work with actors who have these requirements, so as to create the proposals that persist for more than one generation. It should be remembered that architecture usually is more stable than the social and economic conditions, belonging therefore to the essential features of urban culture... [3].

In this article, the term *client* is used in the sense of a potential investor who enters the educational process bringing with them requirements for an urban-architectural proposal. An investor is a person either from the public or private sector, with precisely specified requirements. A mayor represents the population in the area concerned. A private investor represents either individual intention or a group of employees.

Teachers of architectural design at university should be sure it is a substitute for, or gets closer to, the real architectural studios in practice. The pedagogue represents the chief architect; the students represent the employees who are paid for the knowledge they possess. The teacher prepares the assignment and the student consults and designs their proposal. The great advantage is that the assignment is carried out by a group of students; each student creates their own, thus individual, solution. This way leads to a large number of alternative solutions.

A student's level of perseverance and curiosity will have an impact on the creative process. Engagement and active learning, participation in brainstorming sessions and encouraging wild ideas may enhance curiosity and the desire to use [...] certain creative processes as the engine of a design solution [4].

However, there is a lack of direct contact between the education and the real requirements of the praxis (client) and its feedback at different stages of the proposal. In practice, the client is the first determinant that affects the architect through their requirements, properties and finances. The client usually has also hidden secondary requirements - behaviour, communication skills, character, and so on. These hidden features are recognised by the architect during regular consultations with the client and transferred to the architectural proposal. This fact is extremely important for the symbiosis between architect and client.

PARTICIPATION

Participatory planning is a planning method that allows discussion and the search for an agreement. In the case of spatial planning, it is mainly the discussion and the search for an agreement on a functional and spatial solution. According to the scale of the area concerned, relevant stakeholders are involved in planning, which can be both individual residents and representatives of diverse interest groups (public administration, businesspeople, citizens, environmentalists, artists, maternity centres, and so on). Participatory planning usually involves a number of steps: from identification of the stakeholders through discovery of their interests, joint meetings and finding common ground [5].

Participation of the client is, in these cases, the best way to show students the real needs of real-life praxis and to teach them how to work with the client. The basic unit of the educational process is the academic year. An academic year is divided into two semesters. The student solves an assignment of studio work every semester. Each semester has a standard plan and runs for about 13 teaching weeks.

Designing begins with the opening of the studio, when the assignment is explained. Two inspections (criticism) are planned in the semester schedule. During the inspections, the student is confronted with several critical opinions by teachers, and also other students. At the end of the semester, the student defends the studio work in front of the teachers' commission. This part is a public debate on the studio work. This form of education has been validated for several years and creates a prerequisite for successful completion of the studio work. Consultations of studio work take place once or twice a week, depending on the year of study and student knowledge.

An investor participating in studio work cannot take part in every consultation. Therefore, it is beneficial if an investor participates in the assignment, the planned inspections and consequently in the defence of the studio works. Shown in Figure 1 is an outline of the education process.

City mayors choose specific devastated areas, which need to be rebuilt according to the inhabitants' requirements. Such submissions are linked to the real ambient environment, which allows sufficient feedback from inhabitants. The student work results are available in print or electronic forms, therefore, fully reflect the university and local governments' requirements [6].

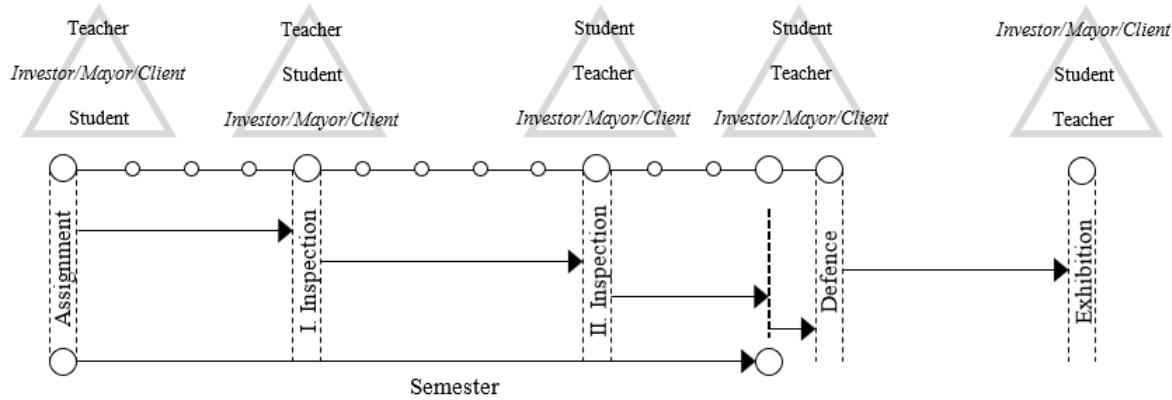


Figure 1: The system of participation in the educational process over one semester.

Assignment

Preparing the assignment for the studio work is a long-term process. The assignment sets out conditions that will directly impact future urban-architectural design.

Stakeholders must be sufficiently familiar with the intended plan in the first phase. In another phase, participation will have a negative impact on the whole process. First consultations are an important part of the whole process [7].

The assignment traditionally has been prepared by course guarantors in co-ordination with other teachers. Nowadays, the preparation of the assignment is based on the participation of the client (investor, representative of local government or municipality) and teachers. Such participation requires intensive communication between the parties.

Based on the client's requirements, the teacher formulates the scope and content of the architectural or urban design assignment, which must reflect the student's skills in the given year of study. The first advantage of this form of studio work is that the student is engaged on a specific assignment in a particular location and for a particular investor; studio work is not only an ephemeral work for the needs of education and personal development of the student. The second advantage is that the client-investor gives a lecture, a discussion, in which the plans are presented.

Another valuable element of client participation in the educational process is an excursion to a selected area, plot or building (see Figure 2). The student sees the atmosphere of the surroundings, buildings, land or nature. ...*The negative aspect of the co-operation with an investor may be the revaluation of the layman's point of view [8].*



Figure 2: Excursion in the country to vineyards and wine production in the village of Dolany, Slovakia (4th year of study).

Inspection and defence, described below, are the other two critical elements of the process.

I. Inspection

This is the first checkpoint of the elaboration of studio work in front of a group of teachers and students, where each student (or group of students) presents the possible alternative solutions in the form of main ideas, sketches, models or interactive 3D solutions. A client may also participate in this phase, but it is not necessary to do so. The focus is on the pedagogical check of adherence to the timetable and the first confrontation between students and teachers. The teacher checks the concept and typology of the solution. The result is an individual verbal assessment of the student. This exchange of views between teacher and student is a prerequisite for the design process.

II. Inspection

This is the second checkpoint in the semester, when a group of teachers confront students individually. Client participation is appropriate at this stage. The design concept is already closed by this stage. Attention is focused on discussing typological adjustments, dispositions or operation. Teachers evaluate students individually in the form of recommendations for further work.

Defence

This is the final presentation of the student's proposal in front of the commission. The commission is composed of teachers who have led the studio works of individual students. The student presentation is followed by a discussion. The result is a final assessment of the student and their obtaining credits for further study. Participation of the client (investor) is also desirable at this stage. The client is also involved in the discussion, although their opinions may be in conflict with urban-architectural principles. The client's participation is beneficial for both parties. The client obtains many ideas on how to use their land. The motivation for the students is that they work on real assignments.

LEVEL AND RANKING OF PARTICIPATION

Teacher - Participant/Mayor/Client

Creating a relationship between teacher and client is the first step in the education process (see Figure 3). Participation begins with preparation of the task. The client presents the theme, place and ideas. The teacher explains to the client the possibilities for participation taking account of the level of student knowledge. The teacher, with the client, prepares materials (images, digital map, regulation, etc) and formulates the assignment. The assignment is designed to reflect

real architectural practice. In addition to the assignment, an excursion is usually agreed at this stage. Teacher and client participation occurs before the beginning of the semester.

Student - Teacher

Another form of participation is the standard educational process. The relationship between teacher and student in urban and architectural design is based on mutual communication. The student brings the ideas, the teacher directs them and looks for trends, assesses typological principles, and hence leads the student. The relationship is based on the student's creativity and the teacher's ability to lead a student. Studying architecture and urbanism requires a high degree of creativity.

The architecture copies the social environment, abilities, possibilities and culture of its builders, investors and architects. [9].

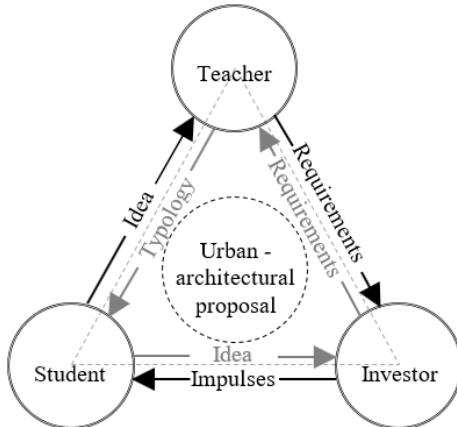


Figure 3: Participation in the educational process.

The teacher, in relation to the student, should be not only a consultant, but also a psychological, social and communication partner. The teacher's role is to give impulses and ask provocative questions that make the student think comprehensively about the problem. This relationship lasts during the semester, from the assignment through inspections to project defence. The teacher must adapt their requirements to the student taking regard of the year of study. From the first year of study, the students improve design skills in the field of residential buildings, civic buildings, restoration of monuments, interior design and urban design. In later years, the student is expected to be able to combine acquired knowledge.

The combination of diverse and incompatible architectural programmes and functions requires a change of opinion in understanding the autonomous and clear typological forms in both urban and architectural scales [10].

Student - Participant/Mayor/Client

Another level of participation is the student's relationship with the investor. The student perceives the investor as highly significant. The investor is a potential client. This aspect suggests a possible real situation. The student listens to the client and tries to transform their views, ideas and requirements into the studio design. The student can directly ask the investor questions that are spontaneous and related to the assignment (see Figure 4). It is an interactive form of dialogue. The dialogue takes place in university classrooms or during an excursion.



Figure 4: Participation of students and investor in studio work with the theme of an urban villa (5th year of study).

Young people make a creative and innovative contribution as they have fresh ideas and new outlooks about town problems, determining how to use town assets in a wise and productive way. Further, the participation of students in an intensive co-operative way opens up new possibilities and opportunities for all collaborating parties. Thanks to the students' studies, towns are empowered to change and become more efficient and vibrant environments [11].

This aspect significantly changes not only the student's thinking but also the investor's thinking; the range of ideas is enriched.

Teacher - Student - Participant/Mayor/Client

This triangle of participating parties appears three or four times during the semester. It is about co-ordinating information and guiding the requirements of the assignment. The trio of parties participates in the formation of assignments, inspections and final defence of studio works. Unlike a teacher, the investor is an advisor, not an assessor of a semester studio work. The evaluation of the work exclusively is within the competence of the teachers who evaluate the proposal from the perspective of the urban-architectural profession and from the point of view of the requirements of the given subject. The investor can actively participate in the defence process with questions and supplementary information, but their assessment is subjective and their opinion does not affect the final assessment.



Figure 5: Participation of citizens in the premises of a municipal office in Stará Turá. The subject of the assignment was a multifunctional apartment building (2nd year of study).

People - Participant/Mayor/Client - Teacher - Student

This is a form of participation realised after the end of the semester. It is feedback from the citizens affected by a proposal. These are residents living in buildings on adjacent land or residents of a city district or the whole city (municipality). The direct participation of citizens in the educational process cannot be *real* for reasons of capacity and time. This form of participation usually takes place in exhibition spaces outside the university, so that the concerned inhabitants can see the presentation posters or physical models (see Figure 5). Residents have the opportunity to discuss with students and comment on the individual projects in the form of an anonymous evaluation or a questionnaire.

Such an evaluation has several positives. The student receives feedback from residents. It is assumed that after graduation from university the student will be able to communicate with the investor, as well as with the concerned citizens.

CONCLUSIONS

Teaching at the Faculty of Architecture has long been based on an exclusive relationship between teacher and student. At present, a participatory form of teaching is most common. An important role in this form of education is played by a client representing needs, as well as citizens representing the voice of the people.

Participation of the investor and citizens in the educational process simulates architectural and urban planning. In addition to designing, the student improves communication with professionals and the lay public. Urban-architectural practice largely is based on communication with the investor and arguments supporting a presented solution.

Today, citizens often want to apply their ideas to the environment and the public is proving to be the most influential factor in creating the environment. Communication with citizens teaches students how to face conflicts with various associations and activist groups. On the other hand, the variation of student proposals educates the participating citizens and provides a wide range of ideas for the client. Co-operation therefore is beneficial not only for students and teachers, but for the whole spectrum of participants. Student work creates the preconditions for a proper understanding of future architectural and urban design in the environment.

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BIOGRAPHIES



Michal Czafík graduated from the Faculty of Architecture at Slovak University of Technology in Bratislava (2011) and concluded his PhD studies by dissertation thesis (2014). At present, he is a senior lecturer at the Institute of Architecture of Residential Buildings. He deals mainly with the research and issue of social housing, focusing on housing for homeless people. Dr Czafík conducts lectures and teaches theoretical and practical courses. The author's portfolio includes published scientific papers, participation in international grant projects, as well as a number of completed architectural projects. He participates in many conferences at home and abroad. The Ministry of Transport, Construction and Regional Development appointed him as a member of the jury for the assessment of affordable housing in Slovakia (2015).



Karol Görner graduated in engineering studies in architecture and urban planning in the Faculty of Architecture at Slovak University of Technology in Bratislava. In 2017, he graduated in doctoral studies at the same Faculty. The topic of his dissertation thesis was: *Intensification of housing estates*. At present, he is a lecturer in the Institute of Urban Design and Planning. He is the author and co-author of several scientific research papers. Dr Görner twice has received a university grant for young researchers. He has participated in international workshops and as a co-author succeeded in urban design competitions. In his research, he focuses on topics related to the efficiency of the urban structure, housing estates and the possibilities of their completion, sustainable urbanism, public spaces and their perceptions. A specific subject of his interest is pedagogy in architecture, urban design and planning.



Lucia Štefancová works as a lecturer at the Institute of Urban Design and Planning at the Faculty of Architecture, Slovak University of Technology in Bratislava. Her research area includes urbanity and composition of the city; new approaches to designing public spaces in rural settlements; urban architecture as a medium of sustainability for cities or topics about the reduction of negative impacts in the urban environment. The focus is on the environment of the city's major axes and urban character of the city as a phenomenon related to the number of visitors, the identity and the ambience in the space. She is the author and co-author of several scientific articles, and has been honoured by a first place award for the authors' team under the leadership of Prof. Kováč at the International Urban Design Competition, *Petržalka's Central Axis* (SKA Competition, 2014). She actively publishes in many international and domestic scientific reviewed journals and presents her experience at international conferences.