Lived experience in urban design education: enhancing students' knowledge, design insight and self-reflection

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ABSTRACT: The authors of this article explore the increasing importance of interdisciplinary research in architecture and urban design, connecting cognitive sciences, psychology and philosophy to understand the balance between conscious and unconscious influences in design. Examining the boundary between designers' personal experiences and theoretical knowledge, the study questions how much theory influences subconscious preferences and final decisions in design. *Lived experience*, or knowledge gained through personal encounters, is a key tool in educating architects to design spaces for people with diverse needs. In the Faculty of Architecture and Design at Slovak University of Technology in Bratislava, Slovakia, this method is used in urban design courses to address the limitations of the post-Soviet city context, which often lacks diverse spatial experiences. Consequently, students must often rely on indirect images of healthy urban design. This article explores how personal urban experiences affect applying theory through research and experiments, contributing to discussions on the role of lived experiences and unconscious processes in designing.

INTRODUCTION

Study tours, field trips, city walks or, in other words, excursions and lived experience teaching methods have long been part of architectural education. Many prominent figures in architecture and spatial planning disciplines have explored this particular approach. Jane Jacobs, Rem Koolhaas, Jan Gehl, Patrick Geddes, Georg Simmel, and others, have articulated the significance of the pedestrian experience as a means of understanding and reshaping urban spaces [1]. As Hein and Van Dooren also assert, study tours and trips are fundamental to comprehending the intricacies of architecture [2].

The context of the post-Soviet city provides a very limited scope of the urban environments and thus also spatial experiences, compared to settlements in Western Europe and their structures. Most of those are in direct contrast to the theories of basic principles of designing a healthy city, such as undefined open spaces or lack of legibility. Thus, in order to understand the basic principles of good design, students are often forced to rely on images of cities, found in books or the Internet, they have not personally experienced.

Therefore, many parts of the education process in the Faculty of Architecture and Design at Slovak University of Technology in Bratislava, Slovakia, (FAD-STU) inevitably rely on field trips to the areas and spaces where students by direct involvement, can appreciate the value of such personal experience and use it as a positive model in their future practice, particularly in the field of urban design and urban planning. Teaching by experiential learning through real-life excursions is a frequently used method across all educational levels: Bachelor, Master and doctoral at the FAD-STU. According to the syllabus analysis, a real-life excursion is one of the teaching methods of 19 courses [3].

In compulsory courses, Design Studios usually involve real-life lived experience in the form of excursions at the beginning of the semester. These visits help students understand the existing relationships in the area they will work on throughout the semester. A Universal Design course incorporates simulation exercises in a real environment. This helps architecture students better understand the functional limitations of the built environment for people with disabilities [4]. At the doctoral study level, the Research Methodology course is organised as city walks with the primary objective of establishing an association between the course matter being taught and the city's spaces or buildings.

Furthermore, in recent years, excursions are increasingly being used as a pedagogical strategy for delivering optional courses. Courses like Sociology of the City or City Architect are based on lived experience learning. During the course Sociology of the City, students visit different parts of the cities to observe the sociological problematics and their connection to the built environment. In the course City Architect, they visit the seats of the executive bodies - the municipality, the city architect, the Slovak Chamber of Architects.

LITERATURE REVIEW

Lived experience in the form of excursions represents an experiential learning method that engages learners in the concepts being learned [5]. Across the literature, excursions are defined as educational journeys outside the classroom, supervised by teachers and involving visits to interactive places. The purpose of these teaching methods is to provide students with an opportunity to gain practical knowledge and experience, which cannot be obtained through traditional classroom education [6].

Literature shows that real-life excursions have a comprehensive effect on students. In addition to a better understanding of theory, they also improve inter-student relationships, motivate the establishment of a so-called learning community and, according to the National Research Council, can lead to quality results in additional after-education involvement and an increase in interest [7].

A particular point to be emphasised is that real-life excursions are an important teaching method because they allow for a multi-sensory experience, allowing teaching to be adapted not only for students who learn best by listening but also for tactile and visual learners [1][5]. The core idea behind excursions is intrinsically linked to human memory, which is predominantly reliant on visual imagery as opposed to verbal communication. The visual sensory experience is paramount in retaining memories and is crucial in the ability to recollect them accurately [8].

While the benefits of real-life excursions, field trips and city walks in architectural and design education have been researched in sufficient detail, there remains a gap in understanding the challenges that may arise during these activities. During the Covid-19 pandemic, a trend of replacing real-life excursions with virtual ones emerged. In this case, the advantages and disadvantages of this trend were summarised in several studies, including the study realised at the FAD-STU [9]. There are also relatively few examples in the literature regarding real-life excursions undertaken by architecture students in foreign nations at that time [10].

Furthermore, although a significant number of studies, papers and articles have delved into the influence of excursions on students, only a few have provided detailed insight into the methodology applied in the research and evaluated the extent of the knowledge gained.

METHODOLOGY

Based on the literature review, the research aim was to answer the question of how and to what extent excursions, as a form of lived experience in teaching urban design, affect the skills that students gain in the learning process. Therefore, a hypothesis was formulated: Students' design skills improve after the excursion to a good example location. Also, the methods were chosen with an aim to understand what type of knowledge was gained in this process. The research took part in March - April 2024 and was focused on 90 students in their second year of studies as part of the mandatory course Urban Typology 1.

Initially, students were assigned to design an ideal residential area (referred to as assignment 1) and asked to pay attention to both the configuration of building structures and public areas. The designed area was to adhere to dimensions 100 x 100 meters, displayed on the scale 1:1000, accompanied by two sectional views/perspectives. Additionally, the students were prompted to describe in the text the urban design principles underpinning their compositions.

Subsequently to this assignment, the experiment with the students took place in the form of a guided excursion. The site of the newly built neighbourhood in Vienna, Austria - Aspern was chosen as it is a good example of urban development, with great emphasis on the flexibility of the urban plan. It was designed as a city of short distances with priority to pedestrian and cyclist-oriented traffic and other urban principles that are hard to find in the context of post-Soviet cities [11]. Due to its qualities, the district has been honoured with several awards, mainly in the fields of climate and sustainability, mobility and architecture: Austrian State Prize for Architecture and Sustainability in the category *Ensemble/Urban Space Creation and Networking* 2019, Fiabci World Prix d'Excellence 2019 and Prix d'Excellence Austria, Austrian Developers' Award (Bauherrenpreis) 2018, Vcö Mobility Award 2018, and others [12]. Alternatively, the students were presented with an option for excursions in selected sites in Bratislava. Once in the field, a further series of assignments were issued to direct students' attention towards the exemplary principles reflected in the real urban structure (referred to as assignment 2).

Following the completion of these tasks, students were asked to refine their initial assignment 1 and reflect on the information gained through this experiential learning method (referred to as assignment 3). Finally, the complex evaluation of these assignments was provided by the authors. The evaluation included examining the congruence between the principles students described in texts (theory) and the drawn designs (real design skill). Attention was also focused on any newly incorporated principles and assessing the overall enhancement in assignment quality.

FINDINGS

The findings were evaluated after the completion of all assignments. Forty-nine students attended the excursion in Aspern, Vienna, and 41 students a good example site in Bratislava.

The first step of the evaluation was focused on the appraisal of the consistency of the text describing the applied theory with the proposed design of the spatial structure. In this matter, the results were striking. Only 32% of the students managed to correctly apply the theoretical knowledge (described in the written texts) in the design of urban structures. Almost half of the designs reached partial compliance with the described principles. However, this skill rapidly changed after the excursion, and the number of students whose designs were in compliance increased to 68% with only 15% of students whose designs were non-compliant with the described principles (Figure 1 and Figure 2).

Figure 1 and Figure 2: Congruence between the described principles and drawn design in assignment 1 and 3 from all locations.

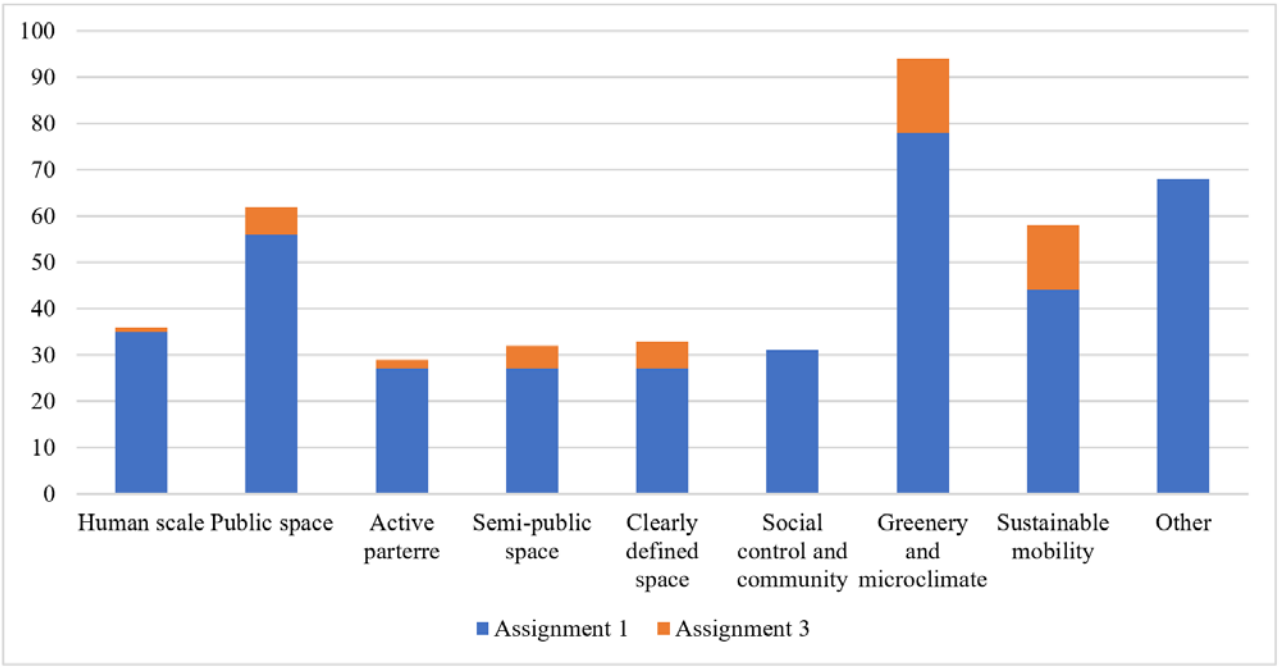

Figure 3: Most common urban design principles and elements, change between assignments 1 and 3.

Also, a difference was observed between the students who visited Vienna and those who visited Bratislava. Students from Vienna achieved better results in the quality of assignment 3 and the monitored criteria, there has been a difference of almost 20% of students' designs in compliance, and 10% in both partial compliance and non-compliance. However, this trend can also be observed within assignment 1. Thus, further research will be needed (Figure 4 to Figure 7).

Figure 4 and Figure 5: Congruence between the described principles and drawn designs in assignment 1 - difference between Vienna and Bratislava.

Figure 6 and Figure 7: Congruence between the described principles and drawn designs in assignment 3 - difference between Vienna and Bratislava.

The skills and knowledge gained by the students and the improvements of their designs can be observed in the following aspects/elements:

1. put more emphasis on courtyards and their quality;
2. rationalise and correct the dimensions of spaces;
3. promote more diversity in building typologies;
4. get more understanding of closer urban design detail - materiality, surfaces and context;
5. add the diversity of amenities - to be on the ground floor and in fine grain;
6. increase density, intensify development;
7. promote more diversity of interior typologies;
8. minimise traffic;
9. add a waterfront and a contact water feature.

More precisely, the results show that 32% of the students improved greatly in the topic of designing the inner block environments. Also, an outstanding outcome was achieved in the sphere of rationalising and correcting the dimensions of the spaces they design (25% of the students). Particular attention was paid to understanding closer urban design detail - materiality, surfaces and context (20% of the students). A similar number of students also put greater emphasis on the diversity of building typology.

To sum up, students' designs improved greatly after the excursion, thus proving the set hypothesis that students' design skills improve after the excursion to a good example location (Figure 8).

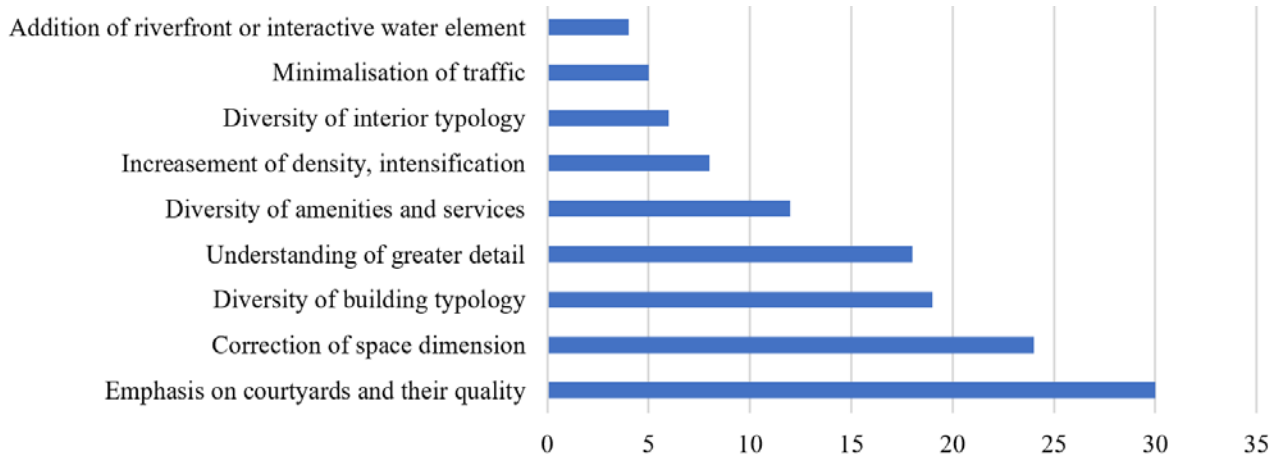

Figure 8: Design aspects/elements in which students enhanced their skills and knowledge.

This evaluation is also supported by the perceptions of the students. One of the students described his experience as follows: *Based on the gained knowledge in the field trip in Aspern (...), I need to say that my initial design was very inadequate. It lacked a human scale, promoted too low density, and thus formed unpleasant spaces. Furthermore, the spatial configuration of the buildings into a super urban block, which was not really closed, was an inadequate solution. Therefore, I decided to redesign this area and changed the superblock to smaller forms that offer a better ratio of the spatial dimension, thus creating a better environment for the users of the space.*

DISCUSSION

One of the main findings is that it is important and also necessary to rationalise and correct the dimensions of spaces, as well as to understand the impact and possibilities that higher density of urban structures brings to the architectural

design. Excursions to the exemplary sites provided students with a specific lived experience of different spatial configurations compared to those they experienced in cities where they currently live and where they grew up. Furthermore, contact with real-world examples gave students a clearer understanding of the finesse of the scale and spatial proportions, which led them to more effective spatial designs. According to the literature review about multi-sensory experiences [1][5], excursions undoubtedly helped to widen an understanding of the link between form and function.

Moreover, exposure to the different typologies of public spaces, but mainly to residential buildings, was seen as inspiring for students to critically reconsider the spatial and typological configurations in locations they come from and where they currently live in Slovakia. The situation in today's Slovak cities reflects a low level of diversity that can be mostly seen in the use of residential building and public space typologies, which is consequential to the smaller amount of new construction and prevailing housing estates from the socialist era. This results in students not having an opportunity to experience and see how differently approached contemporary typologies of public spaces and buildings function in real-world settings. This is also the reason behind the difficulty in incorporating these typologies into their designs.

As it is demonstrated by the results of assignment 2, this was overcome by the excursion. In self-correction assignment 3, students retrieved the memories they had obtained from the *in situ* commented excursion. One of the students stated in their report: *If I had a chance to make this assignment again, I think I would be designing more* out of the box. *I think I would not have followed the grid and standard concept of the mass housing estate that I am used to*.

A similar awareness was demonstrated in relation to the importance of courtyards and water features that emerged as focal points of design improvements. Lived experience with these elements in the real-world setting allowed students to recognise their value and potential as places for social interaction, environmental sustainability and aesthetic expression. Additionally, the excursion helped students understand architectural detailing and materiality, enriching the authenticity of their designs. Diving into the tactile experience of the public spaces and buildings' façades or constructions, the *in situ* excursion provided an invaluable insight into the sensory quality of the built spaces.

Further research is needed to evaluate the impact of excursions on the student relationships in the student community.

CONCLUSIONS

The presented research provided insight into how excursions, as a form of lived experience in teaching urban design, affect the knowledge that students gain. Firstly, the hypothesis that students' design improves after the excursions to a good example location was proved.

Secondly, the excursion in this study proved to be a transformative pedagogical tool that bridges the gap between theory and the real-world built environment while nurturing students' design acumen. Particularly, the most important skill turned out to be the acknowledgement of dimensions of spaces, understanding the diversity of building typologies and emphasising the quality of the courtyards. Furthermore, the type of assignment provided to students after the excursion helped them to be self-reflective and reflect on the knowledge they had gained during the excursion itself.

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