FAM

ArchéA
Architectural
European Medium-sized City
Arrangement

Co-funded by the
Erasmus+ Programme
of the European Union

IO3
2021

Manual of best practices for a blended flexible training activity in architecture for higher education institutions

UNIVERSITÀ DI PARMA
DIA Dipartimento di Ingegneria e Architettura
ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA
Silesian University of Technology
RWTH AACHEN UNIVERSITY
Normandie Université

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FAMagazine. Research and projects on architecture and the city

ArchéA. Architectural European Medium sized City Arrangement

Editor: Festival Architettura Edizioni, Parma, Italy

ISSN: 2039-0491
DOI: 10.12838/fam/issn2039-0491/n0-2021

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This volume returns the results of the Intellectual Output 03 of the research project “ArchéA. Architectural European Medium-sized City Arrangement”, with the aim of analyzing and restating the state of the art achieved in the field of flexible mixed training in architecture, strongly encouraged by the emergency period of the Covid-19 pandemic. The result is a collection of good practices carried out internally and externally to the ArchéA partner network, in the context of higher education institutions, made possible by new virtual tools capable of mediating teaching and mixed and flexible learning around the disciplines related to the project.

ArchéA. Architectural European Medium-sized City Arrangement

Project Reference: 2018-1-IT02-KA203-048305
Programme: Erasmus+
Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

https://ec.europa.eu

This manual comes out as a special issue of the “FAMagazine. Researches and projects on architecture and the city”, associated partner of the ArchéA research project.

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edited by Enrico Prandi and Paolo Strina

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Analisys of the Best Practices

Call for papers

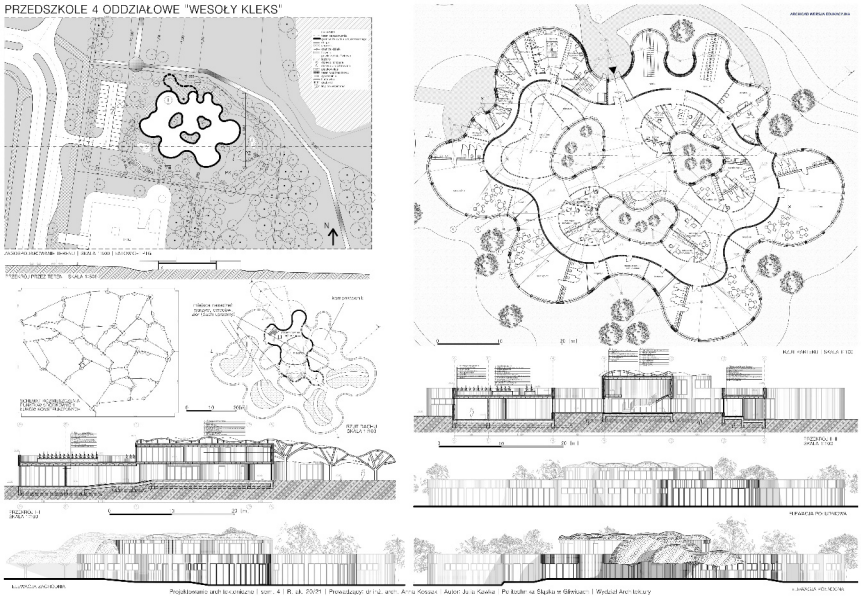

Fig.01 Sample Technical Board – Preschool, author: stud. Julia Kawka, tutor: Ph.D. Eng. Anna Kossak

DOI: 10.12838/fam/issn2039-0491/n0-2021/822

Anna Kossak

Evaluation of the current situation of distance education, with reference to the own academic practice.

Silesian University of Technology, Poland

I work at the Silesian University of Technology Faculty of Architecture in the Department of Residential and Public Utility Architectural Design, where I teach design classes (Design of Single Family Houses in the 3rd semester, Design of Small Service Objects in the 4th semester, Design of Large Service Objects in the 7th semester for full-time and part-time students, as well as design and seminar classes for the Master's degree. Having worked remotely (100%) with students for 3 semesters, I came to the following observations about education in this mode:

NEGATIVES:	
Tutors:	**Students:**
In the first semester of working remotely - a definite extension of time of preparing for classes, so that the meeting with students won't extend beyond the designated hours according to the timetable (the need to download files sent by students, make corrections to drawings in graphics programs, save the corrections made during the classes and send drawings to students after meeting with them at ZOOM) - instead of e.g. 5 hours planned, you had to devote additional 7-8 hours of work per class.	If the instructor failed to correct drawings before class, the class meeting dragged on well beyond the hours allotted for it according to the schedule, making them waiting for the correction much longer.

No opportunity to work together with the student on spatial models of the projects, which are extremely important in the phase of project conception and their correction. The only thing left to do was to discuss their preview on the ZOOM cameras or correction of the sent drawings.	Working on spatial models severely hampered and prolonged by not being able to modify them, in collaboration with the instructor in the classroom.
Lack of direct contact and interaction with students, getting to know them better, reading signals they send through their body language.	Lack of direct contact with the instructor and especially with other students. It is known that for young people the period of studies is a time of making acquaintances, friendships, love, stimulating each other to joint activities at the university (e.g. competitions, work in scientific circles) and outside it (e.g. joint events, outdoor trips), mutual stimulation through the exchange of views in an unforced manner, because it results from being in each other's company naturally.
Increased working hours, mixing private time with work time, as many meetings, gatherings and consultations now take place in the afternoon and evening.	Increased availability of tutors for additional consultations, especially for final consultations just before handing in drafts, which often end as late as the morning before the hand-in deadline.
POSITIVES:	
Tutors:	**Students:**
Becoming familiar with new remote communication tools: ZOOM, BigBluButton, Microsoft Teams, and more frequent use of the Remote Education Platform (RES).	Becoming familiar with new remote communication tools: ZOOM, BigBluButton, Microsoft Teams, and more frequent use of the Remote Education Platform (RES).
In the second semester of remote work - thanks to the fact that employees were equipped with graphic tablets, classes could be held only during the hours designated for them in the timetable, because there was no need to prepare in advance for meetings with students and corrections of drawings took place directly in front of them, just as during the classes.	Getting used to taking Print Screens from the screen on a regular basis and even recording consultations on directly revising their drawings, so they don't miss comments on their projects. Not having to print project drawings for every consultation, which generates a lot of cost.
Some of the comments on the projects are universal, so the instructor can address them to all the students in the class when discussing someone else's project. The class becomes fuller and more intense because students can learn from each other's thinking, work, and creativity, and the instructor can draw them naturally into discussions of each other's projects.	In a classroom setting, the proofreading of project drawings takes place right next to the student, making it physically impossible for the others waiting their turn to observe the work of others. By having a glimpse of their groupmates' projects, this waiting time is filled with the additional learning that comes from being able to see what ideas others have, how they work, they can share their ideas and comments on other work, and they can compare themselves to them.
Evaluation of student work at the end of the semester is more comfortable, as it does not require prior individual assessment by the instructors while wandering around several rooms to look at printouts of the project boards, before the whole committee meets and averages the proposed grades for the projects. Their presentation now takes place at ZOOM in the presence of the entire committee, with additional commentary by the presenters on the work of his group, and the grade is given together immediately afterwards.	Students do not have to print out their designs and tape them to foam boards, which is an expensive part of studying in the Architecture Department. Students can look at other students' final design boards, hear comments on them, learn from their own and others' mistakes, understand and get more of a feel for the ideal they should strive for in the creative design process by comparing the ideas and ways of final presentations of other students' work with their own.
Not having to commute and time spent on it can be used for other activities.	Not having to commute to class and, in many cases, not having to rent a dorm room or a hostel reduces their cost of living significantly.

Technically speaking, the best performing methods in my department at this point, using the "Small Service" subject as an example, were:

• for the subject instructor-student interaction - communicating via the **Remote Education Platform** (which was already in place before, but has now further strengthened its task), where student could see all information about the subject, the project topics to choose from, the conditions for passing, the grades for: the clauses, the 2 reviews and the evaluation of the technical board and the cumulative board and, at the end, of the pass colloquium.

• for the project leader-student interaction - communication via e-mail, **capacious e-mail boxes on mailbox wp.pl** separate for each subject and for each staff member (as well as separate with the staff mailbox on domain polsl.pl, so that the information does not mix), to which students send 1 chart in jpg format (maximum size 10000 pixels/7000 pixels horizontal alignment, file size up to 10 MB and signed: Surname_First name_ Consulting_Date) prior to the start of class. The classes themselves were held remotely in virtual meeting rooms created in Zoom. During the classes students could correct the submitted drawings using a graphics program such as Paint, or by using the drawing tool directly in Zoom. During consultations, students recorded the results of the correction (or its stages) on their own, through a print screen. The WACOM One Creative Pen Display **13.3" graphics tablets**, which all the staff of my department were equipped with, turned out to be a huge help in their work.

Reviews of work progress were conducted in the same manner, but in the presence of 2-3 instructors and students from their groups. The students then uploaded the boards for grading and enclosure assignments to the Remote Learning Platform as well.

• The project was submitted in two stages - two weeks before the end of the semester "Technical Boards" were evaluated, and at the end "Summary Boards" completed with sketches, generative diagrams, coloring, visualization. They were sent not only to the teachers but also to REP, both in pdf and jpg format (jpg - maximum size 10000 pixels/7000pixels file size up to 10MB, pdf - maximum size 100cm/70cm file size up to 10MB, signed: Surname First name subject technical board.pdf/jpg, Surname_First name_Subject_ Technical Board_pdf/jpg or: Surname Name subject summary board.pdf/jpg Surname_First name_Subject_Summary Board_pdf/jpg), with the TB set horizontally and SB set vertically. TB were graded in subsets as on the reviews, SB by all presenters without student participation. After the designated turn-in time, group leaders uploaded work from their students to an external Google Drive created by the subject instructor, divided into subject directories. From the starting time of the class, the team of instructors had 2 hours to evaluate all the work independently, after which the entire team met in the subject instructor's meeting room created on Zoom and evaluated together the projects displayed by the instructor one by one.

Dividing the evaluation of the projects into two stages, the Technical Board and the Summary Board, allowed for a more in-depth evaluation of the projects in terms of the technical correctness of the drawings, and then in terms of the readability of the idea or the attractiveness of the project

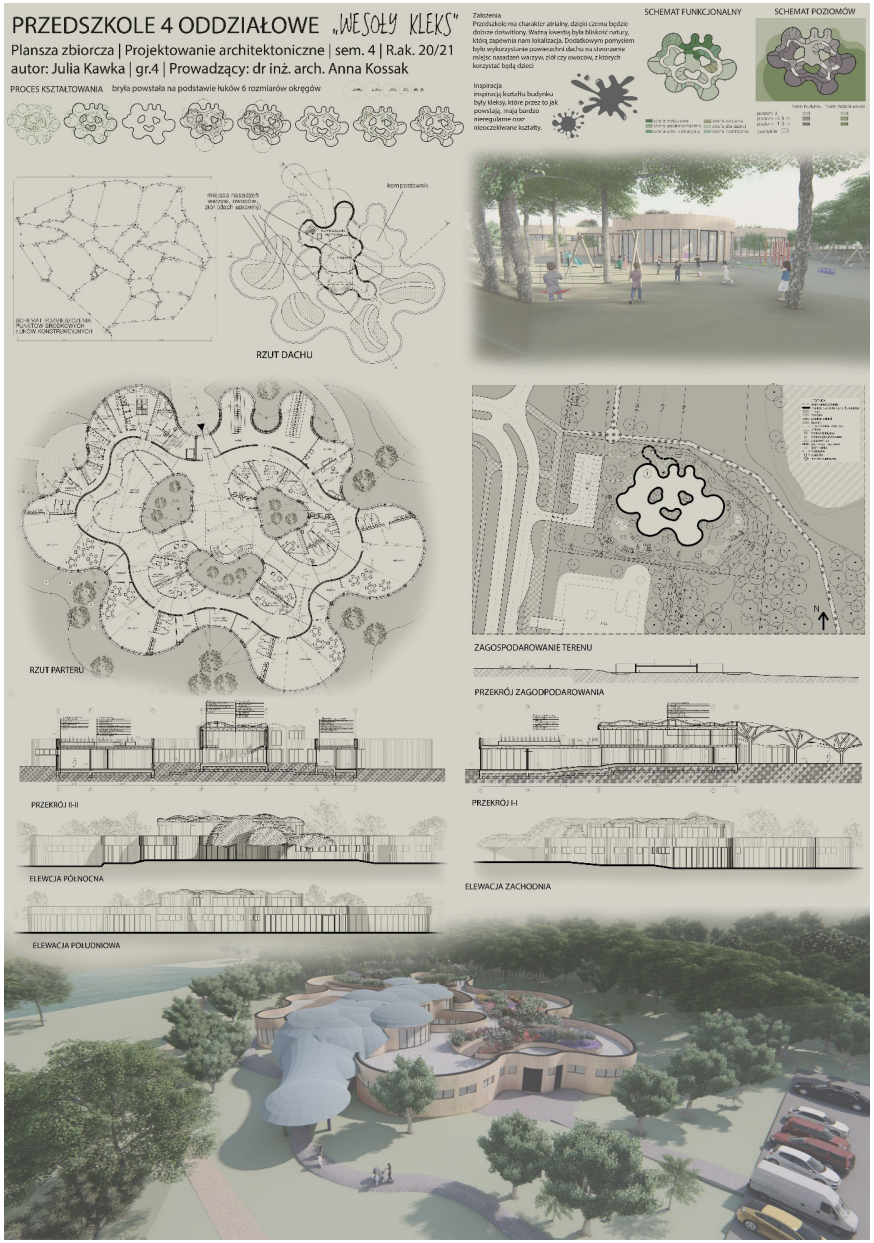

Fig.02 Sample Summary Board - Preschool, author: stud. Julia Kawka, tutor: Ph.D. Eng. Anna Kossak

presentation. Single boards of sufficient resolution (especially those of horizontal orientation) improved the presentation of the project, which in previous years was printed on 2-3 such boards (to maintain the legibility of drawings).

• The presentation of work (and its archiving) is facilitated by the fact that all projects are available to anyone interested on an external Google Drive.

Summary

At the end of another semester of working remotely, we have not noticed a decrease in the quality of student work compared to previous years. Very quickly, my faculty members transitioned to teaching remotely, so the summer semester work in 2020 ended on schedule. Many of the solutions shortened the time of work (no need to commute), reduced costs (in addition to the lack of commuting or renting student rooms also the need to print projects), made the classes more attractive (students could follow the progress of their groupmates). However, there was a definite lack of personal contact between the instructor and the student (especially at the initial stage of working on the spatial model during the exploration and formation of concepts) . There was also a lack of direct interaction of students with each other, which promotes informal exchange of ideas, mutual inspiration to work together. Contact classes, despite the indisputable benefits noted with remote classes, create a unique atmosphere and bring invaluable benefits. As a lecturer at the Faculty of Architecture for many years, I believe that the most beneficial form of conducting classes would be classes in a hybrid mode, and remote-only classes should only be conducted in a crisis situation, similar to the current coronavirus pandemic.