

Design Studio Pedagogies

An aerial photograph of the TU Delft campus, showing several large, multi-story brick buildings with gabled roofs and a central courtyard. The buildings are surrounded by lush green trees, some with autumn-colored foliage. A road with cars and a truck is visible in the lower right. The overall scene is bright and clear, suggesting a sunny day.

 TU Delft
BK Bouwkunde

4TU. CENTRE FOR
ENGINEERING EDUCATION

Design Studio Pedagogies

Describing, evaluating, comparing

How do different studios define their focus and approach?

(2020-2021) Interviews with teachers via a set of questions addressing a mix of content, pedagogy and didactic oriented topics:

- position and pedagogies
- creation of a learning environment
- monitoring a learning process
- teaching the teacher
- online teaching



Design Studio Pedagogies

Matching students' experiences?

(2021-2022) Interviews with students via a mix set of questions addressing:

- how to select a studio
- assessment and feedback
- how do you think your education will serve your future role in practice

At this moment the results of these interviews are being processed.....



Design Studio Pedagogies

(2020-2021) Interviews with teachers, general findings:

- Studios as open creative environments in which collectivity (teamwork, collaboration) is as important as the individual
- Peer review amongst students is considered an important instrument in the learning process
- Studios explore the agenda of the future more or less consciously

But

- No remarks were made about competition among students
- Time for free exploration, fail and restart during the course, was mentioned only once
- Particularly the ambition to come up with innovations is not mentioned often



Design Studio Pedagogies

(2020-2021) Interviews with teachers, general findings:

Process of education:

- Work in cycles from research/knowledge to design; the number of cycles differs per studio
- Teachers monitor ongoing education permanently and adjust education; during Covid this was a main problem
- Some studio's advocate for a strict structure in order to frame explorations beforehand; others leave it up as much as possible to the students

Relationship with practice:

- Is valued important and anchored/realized via guest lectures, visiting critics, and tutors/professors active also in practice



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(2020-2021) Interviews with teachers, general findings:

Learning objectives:

- Some studios put stress on getting acquainted with specific methodology while others mention generic academic skills
- In Building Technology, Urbanism and Management in the Built environment studio's the process of collaboration, key in professional practice, is an important skill to train and is part of the learning objectives

Reflection on teaching:

- Teachers mentioning BKO were clearer about achieving learning objectives than ones who didn't followed this trajectory

Covid impact:

- Education is a social act; blended learning is an advantages



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1								Erwin Heurkens	Sake Zijlstra	Frits van Loon	Lei Qu	Leo van den Burg	Lidwine Spoomans	Marcel Bilow	Thaleia Konstantinou	
2								MBE	MBE	Landscape	Urbanism	Urbanism	Heritage	BT Engineering	BT Engineering	
3								MSc2	MSc1	MSc1	MSc2	BSc ON3=2nd year	MSc3	MSc1	MSc1	
4								Erwin Heurkens	Sake Zijlstra	Frits van Loon	Lei Qu	Leo van den Burg	Lidwine Spoomans	Marcel Bilow	Thaleia Konstantinou	
5								Academic staff	Academic staff	Teacher of practise	Academic	Academic Staff	Academic with practise background	Academic staff and practitioner	Academic staff	
6							Position and pedagogy									
7																
8							Studio description									
9							title	Urban Redevelopment Gar	Redesign	Urban Landscape Design Studio	Spatial strategies for the global me	City and public space	100% Heritage	Bucky Lab	Research and innovations (new 2021)	
10							organisation studi	4/5 x 15=60 studenten	60 studenten	a studio has a design teacher and	2/3 teachers guide 2-/30 students;	2 groups nine students taught by 2 te	45 students= 3 studios 3 tutors each	60-80 students. Semester is composed of 3 10 ECTS bloc	60-80 students; group of 10 tutors represen	
11							structure educatio	1. theory: lectures and liter	4 design assignments: 2 analysis, 2 redesign for a given case; group c	1. develop a vision; 2. design a spat	Used to be open: students should co	group research > individual design projects	Students develop a product from sketch>proof: 1:1 built pri	1 in six weeks there are about 40 lectures re		
12							course activities	lectures, practise lectures,	weekly meetings; lecture series on theory and practise	studio meetings, workshops; lectu	Studio; 1 to 1 feedback; activities are	depending on teachers and tracks	weekly meetings in the studio	Lectures. Seminar. Practicum		
13							trained skills	negotiate, manage, synthe	deepening knowledge and skills fo	work in very large teams; position	regional planning strategy tools an	urban design; zooming in and out and	valuing and value assessment from multiple al	handle a complex problem; think out of the box; experiment	research methodologies for innovative bui	
14							learning objectives	organize and simulate a co	How to see opportunities / options and make/argue choices in redesi	explore the future circular economy	Get acquainted with urban design of c	Discover and use values of existing buildings	learn to handle a vague/broad assignment; big goal in the e	developing an academic and scientific titl		
15							Kind of assignment	what it takes to manage an	complex redesign case	1. Relation architecture and environ	Q3. regional design (Q1 is city, Q2 is	Redesign of a building block (it used t	restauratie/ conservation; future heritage of	Based on the lectures students choose a		
16							input	place, process, product, pe	theories, literature on how to study a case and complex projects	Concrete research project; lecture	ON1/2, GR1/2/3	Urban design	Lecture series on knowledge; companies, sustainability, me	Lectures on climate design, facade, produc		
17							outcomes	re-design		spatial planning strategy based on	Urban design	Rotterdam	Innovative concept for a product (sustainable) and a report	research paper (50% of the grade) and 4 as		
18							location	NL; wisselt iedere twee jaar	Rotterdam-Zuid	Netherlands	Netherlands	Rotterdam				
19							theories	action perspectives; mana	Case-study research methodologies	planning theory and practise; collat	different tracks represent different fie	re-use as a common situation	Engineering knowledge plus ...	Literature research, methodologies are rel		
20							connection to practise	action	at midterm and final reviews	Topic; specialists participate in mid	term and final reviews; studio should	as external crits; students value to work on re	working on concrete assignments motivates students (thir	specialists from industry and other univers		
21							teaching style	group supervisor + guide a	we provide basic literature and cas	informal and intuitive	Diversity of personalities		try to be the teacher I always wanted to have; use the 12 ped	lectures in a webinar format; consults		
22							Studio Power Features	interdisciplinary nature; combinations of differ	freedom (risk is strong personalities take too much the initiative); test	multiple theories on 1 case; focus on the end user			Lifelike situation, realistic topic, in collaboration with comp	Specific focus on research methodologies		
23																
24							Studio methodology									
25							methods	interdisciplinary role-play	Students should discover interest	combination of research and design	research by design; design by rese	There are six/five? tracks (morphology	Lab programme (related to the chairs: values	hands-on approach: based on architectural scientific rese	Different types of methodologies are addre	
26							didactics	prepare, practise, reflect, bu	Students learn from studying spec	research feeds design questions; v	Students and teachers should step	Bildung / self-development; students	1. discovering values by mapping them, 2. eva	The studio is more about the process than about the prod	it is not based on a specific theory; the aim	
27							students aware of it?	Students find it difficult to p	students like it, but, the first 5 week	students are shy to share their exp	a midterm student evaluation is spar	Some students enjoy freedom; but, th	during the course open attitude to comment;	schedule of knowledge input is not always clear during the p	Throughout the course (and later on in the M	
28							relationship methods <> outcomes		knowledge gained from case study is	visibly implemented in the studie	methodology <> design help each	Difficult question; that needs evaluati	emphasis on getting to know a place very well:	students think in variations and alternatives	combination: examples from practise and	
29							research <> design			landscape biography; take a positio	Collaboration with funded research:	circular economy (= waste managem	all design studios are related to research by th	The studio is research by design	students develop an element of a design us	
30							input by other disciplines	specialist from practise inv	a whole range of stakeholders is ir	People from practise are invited to	People from practise participate in	Professionals working on the stuy area in practise	are invited at the introduction an	Specialists are invited to join	Library staff to explain literature research; s	
31							Learning environment									
32							learning environment <> studio philosophy	students should come up v	architecture style studio: working	quarter 1,2 academic; quarter three	education is on content and on co	Teachers should structure education	group research builds collective knowledge; t	Studio is like a think-tank. A cohort is group/family	lectures have a webinar format: students as	
33							studio social dynamics	informal setting; students f	Teachers try to be as informal, op	working in large groups pushes pe	Students should feel like being part	of a big academic community, related to	practise too, working on relevant societal	very social: peer to peer; supportive and open; peer to peer	Pretty informal	
34							feedback from students during the studio	ask questions at the end of	feedback loops are integrated	feedback forms are developed for	specific exercises and meetings; he	There is no structural request for feedback. Kwaliteit	zorg and sometimes Stylos ev	open and personal atmosphere, students feel free to tell	Formally when the course is finished; stud	
35							studio preparation	send emails to get the coui	informally: tutors react on what stu	the beginning is structured; then it is up to the students; the program	Coordination sets up teachers-meetings with every track to prepare the course. Ev	students post a progress report every week, so students k	organizing group work online was complex			
36							learning outcomes achieved?	students say yes, but cann	No, 3 out of 60 student get a retak	no; but it is hard to measure this be	Yes: there is a rubric to check, lean	Yes, but, it is difficult to quantify		To a large extend yes; next year the number		
37							reflection on teaching	series of meetings to prep	The course is discussed with a clic	talk about it with colleagues; BKD	Coordination and tutors talk 1. bef	Took course on educational leaders/	via BKD peer review introduced; but this is no	The Bucky Lab is famous worldwide; lectures, summer sch	BKD helped developing the course	
38							Covid impact	Negative?	Quality of output was less.	no opportunity for small but impor	Lectures are sending, there is no e	in a design process direct social in	Emphasis was on preparing the cours	No site visits, group work difficult, students n	No face to face contact and personal interaction; you can't	Cameras were turned off more and more; p
39							what are you going to take?	students were hesitant to interv	group chemistry on the spot is irreplaceable; more attention fo	Recording lectures are valued; it is	Education can be quick and more pre	online 20minutes clips; flipped class room; in	Slack platform to stay connected; moocs / online learning	it is easier to invite people from practise; p		
40							what did you change?	not much; more attention f	feedback loops added (student an	frequency of meetings increased	not very much because the course	Two in stead of three assessment moments. 1 to 1 teaching was replaced by 1 to 3/4	Much more prepared and studio meetings and learning goe	The online situation means a strict structur		
41							Other input	how to organize interactio	This period stresses the importan	The importance of team work: know your qualities, ask the right questions, how to contribute best. Should be introduced sooner than graduation						

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Experiencing studio education | STUDENTS QUESTIONNAIRE

76 students filled in the questionnaire:

ARCHITECTURE: 49 (out of 450 MSc1)

URBANISM: 13 (out of 80+40 LA)

BUILDING TECHNOLOGY: 8 (out of 70)

MANAGEMENT IN THE BUILT ENVIRONMENT: 6 (out of 75)

GEOMATICS students were missing; not all ARCHITECTURE studios are represented (HERITAGE were missing)

STUDIO METHODOLOGY: MOTIVATION

1. Which studio did you follow in Msc1?

[Open question] or make a list

2. What was your main motivation to select this studio?

Topic Interest | Friends recommendations | studio info presentations | Fits your future plans | Coherence between opinion, theory, methodology, design | Design methodology/tools | Teaching methods | Teachers | Content of the course | Studio social atmosphere | Team or individual work | Excursion | low hourly investment | suits my agenda

3. When you selected your studio, did you know about the studio's :

Topics | Research methodology | Design methodology | Position | Teaching methods | Teachers | Content of the course | | Studio social atmosphere | Team or individual work |

4. How do you think this studio distinguished itself from other studio's?

Topics | Teaching methods | Design process | Research methods | Practice oriented | Research driven | Inter-/ Multi-/ Disciplinary approach | multidisciplinary approach | emphasis on creativity | strict methodology | openness to explore your own ideas and fascinations | state of the art

5. If you look back at the choice of studio, did you miss anything regarding the topics above?

[Open question]

LEARNING ENVIRONMENT: FEEDBACK AND EXAMINATION

1. How was feedback given during the studio?

Top down or bottom up | Coaching or judging | peer review amongst students or more through teachers | individual or group feedback | exploring <> expected | supportive positive <> hard critical feedback

2. Characterize the ambiance during the final presentations:

Interaction teachers and students | stress | fun | relieve | open ambiance/ strict | no discussion/discussion|

3. How did the studio take into consideration the students and their wellbeing ?

Incentive for inspiration | sensitivity to students as individuals| takes into account stress | balance between studio and other courses/life| working late nights | peer-competition | attention for your personal goals

4. What did the studio teach you that you hadn't expected?

[Open question?]

5. Did you miss anything in this questionnaire, or do you have remarks?

Specific subjects | skills | Information | [fill in something yourself]

LINKING TO PRACTICE: YOUR ROLE AS A FUTURE PROFESSIONAL

1. What would you like to do after your studies in the professional world?

[Open question]

2. What kind of practice do you want to be part of in the future?

[Open question?]

3. How do you think your studio contributes to your role in the professional world?

[Open question?]

LINKING TO PRACTICE: YOUR ROLE AS A FUTURE PROFESSIONAL

3. How do you think your studio contributes to your role in the professional world?

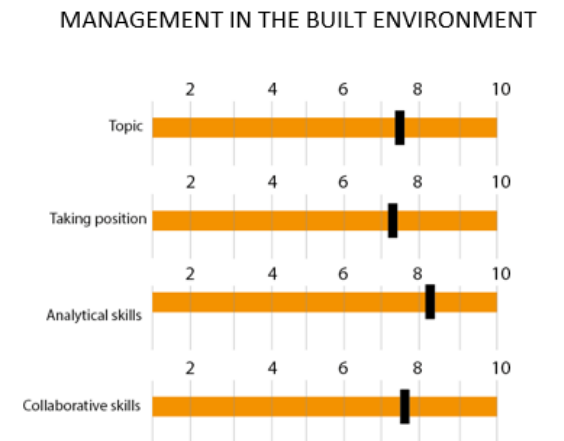
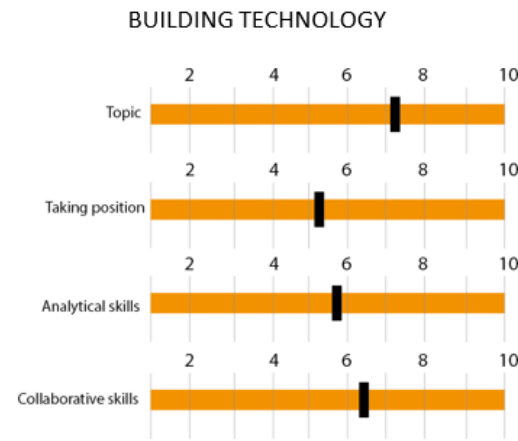
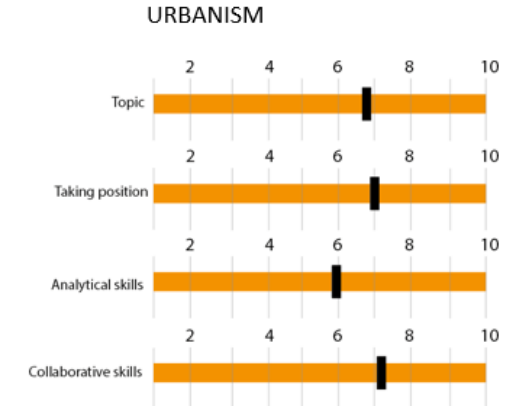
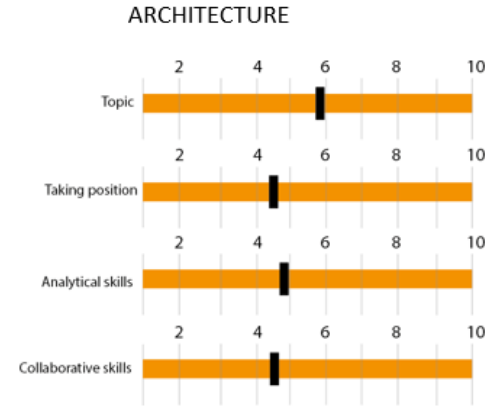
[grade per topic]

Topic | taking position | analytical skills | collaborative skills

Findings (so far)

U and MBE Architecture students are confident; contrary to A students

A studios need to pay more attention to collaboration



Findings (so far) from the students questionnaire

STUDIO METHODOLOGY: MOTIVATION

Topics and contents are on top for every track;

Remarkable: Students U, BT and M value the social atmosphere of the studio when choosing the studio/tracks;

Remarkable: U students grade higher for every topic (is one big group, no studios);

Teaching methods are not known at the time of choosing a studio, but, mentioned in the questionnaire as important differences between studios

LEARNING ENVIRONMENT: FEEDBACK AND EXAMINATION

In general students experience feedback as 'coaching';

In A-final presentations stress and relieve emotions are often extreme; U performs best at avoiding stress;

U + MBE value students as individuals with personal goals;

Collaboration needs more attention in A

Linking to practice: Your future role as a professional

In A + U 50% would like to work in a design office

In all tracks education mentioned often

U + M students expect skills to be fitting practise; A expect trained skills to be usefull below average; BT expect this above average

The questionnaire raised importance of complete information to choose a studio including pedagogy and didactics

Possible links outcomes teachers interviews <> students questionnaire

STUDIO METHODOLOGY: MOTIVATION

LEARNING ENVIRONMENT: FEEDBACK AND EXAMINATION

Linking to practice: Your future role as a professional

Design Studio Pedagogies

Follow-ups:

- Sharing the findings inside BK, creating awareness for certain matters (particularly useful for suggestions that are emerging from the questionnaires)
- Discussions in the framework of similar initiatives from TU Delft/4TUCEE
- Presentation at one of the EAAE education academy events
- Writing an article relating to existing thematic researches (e.g., J. de Walsche PhD on architecture studios, H. Harris 'Architecture Afterlife' project, about the ways graduates are active in the professional world)

