

Turbulence in Crit Assessment: from the Design Workshop to Online Learning

Virginie Tessier, University of Montreal, Canada

Marie-Pier Aubry-Boyer, University of Montreal, Canada

Abstract

Critique in design education is redefining itself, but its primary aim still focuses on offering and receiving feedback on workshop projects. The global pandemic has forced teachers to adapt their methods for online workshops. The following paper questions how design critique has changed teaching and learning experiences, focusing on the distinctions between in-person and online sessions. Before winter 2020, students used to wander through the school's workshops, filled with sketches and models of ongoing projects. Since then, we were faced with the loss of a shared physical space leading to many changes that should be addressed as online workshops are going forward. As a result, the pandemic has accentuated some of the challenges of offering detailed feedback to projects and has shown the complexity to stimulate students' interactions during a critique. Gaps created through social distancing seem to have impacted not only the critique activity but the entire project and learning process. By exploring the teaching experiences of a dozen workshop tutors, this paper brings out concerns about the metamorphosis of general interactions and highlights an impact on the design activities. By referring to Lave and Wenger's situated learning, we discuss the importance of interactions while conducting projects by explaining, discussing, showing, or just looking at what others have done. This paper provides an overview of key elements to improve feedback and communication, emphasising that constant interactions with peers, teachers, and experts are especially meaningful to prepare the designer to its future community of practice.

Keywords:

design education, critique, social practice, online workshops, design process

Introduction

The design process is a complex synthesis of various activities accomplished by the designer in interaction with other actors. As it has been shown in past research, design projects alternate through cycles of various actions, including framing, naming, moving, reflecting, evaluating, and negotiating (Schön, 1983; Valkenburg & Dorst, 1998; Zahedi & Heaton, 2017). As listed, an emphasis is offered to the active or retroactive analysis of ideas and decisions during a project through various forms of individual or social evaluation. Similarly, Christensen and Ball (2016) state that "evaluative practices are important in all creative industries, where key individuals are invited to assess products 'in the making'" (p. 116).

In agreement with this statement, we feel it is crucial to offer training opportunities to design students to develop their critical thinking skills by receiving and offering feedback. Sustained training eventually brings the students to initiate their critique activities with themselves and in interaction with others (Tessier, 2021). According to Goldschmidt et al. (2010), architecture

students can participate in up to 250 to 350 critique sessions throughout a typical training of four to five years – underlining the critical relevance to discuss this activity. Still, some say that “we lack an in-depth understanding of critiquing in design education” (Oh et al., 2013, p. 303). Indeed, we noticed that a limited body of publications offers detailed accounts of this practice. Among these studies, some are acknowledged for their analytical quality and descriptive depth. For example, Schön’s analysis of the one-to-one desk crit is often referred to as one of the most exhaustive reports of this designerly assessment practice. However, fewer studies have investigated the unfolding of critique activities when involving multiple social actors (some examples are: Oh et al., 2013; Gunday Gul & Afacan, 2018; Gray, 2019). Gray (2019) also states that even fewer researchers have addressed the critique as an informal activity, based on daily interactions and discussions with friends, peers, and others.

Faced with the global pandemic during the school year of 2020-2021, most teaching institutions had to react quickly when schools and universities were compelled to pursue their activities online. Due to lockdown protocols, design teachers and institutions have had no choice, but to adapt their face-to-face studio methods to online workshops (Jones, 2021). With this reflective paper, we propose to study the drastic change in studio approaches on design critiques. By analysing the reflections of 11 design studio teachers, we will explore five complementary aspects of their experiences: ease of interactions, student attitude, teacher experience, design project, and technology.

Through this reflective paper, we wish to create bridges between their experiences and retroactive reflections with our theoretical and practical comprehension of design studio learning. This paper aims to initiate a discussion around design critiques to inform potential improvements of studio practices. Based on our teaching experiences, we sense that these changes have induced unprecedented transformations in the traditional ways of critiquing ever since Ecole des Beaux-Arts. Gaps created through social distancing seem to have impacted not only design critique activities, but the whole project and learning process of design students. This discussion will lead us to refer to Lave and Wenger’s concept of legitimate peripheral participation, drawing attention to the social nature of design practice and the importance of sustained formal and informal discussions to fully integrate a community of practice. But first, we wish to address a few of the main features of critique activities in the pedagogical context.

The Design Crit

The critique is a fundamental activity of the design process, allowing the designer to renew its perspective on the ongoing project. Design critiques occur in many forms (formative or summative) and involve various actors. In their literature review, Oh et al. (2013) propose a clear distribution of these parameters. From an individual setting to a public context, the critique can be organised solely between a teacher and a student (also called ‘desk crit’) as well as in small groups, as a class, or in front of a public assembly with a jury and other experts. According to Oh et al. (2013), comments can be expressed either verbally or by drawing, writing, or moving. The unfolding of design critiques is multidimensional according to the actors involved, the stage of the project, the chosen critique mode, etc.

Multiple pedagogical objectives are associated to design critiques. The first objective is also the most straightforward: to offer and receive feedback on an idea or project state – from the

preliminary proposition up to the final solution (Gunday Gul & Afacan, 2018; Gray, 2019). The second aim seeks to practice the learner's communication skills, from sharing an idea to building an argumentative speech. As advocated by Oak (2000), peer interactions are essential to learn design "through talking to others, and through hearing others talk, about design's successes and failures" (p. 88). The third objective of the design crit seeks to develop reflective and critical thinking skills by "encouraging the discursive exploration of design processes, decisions, and outcomes" (Gray, 2019, p. 930). A fourth purpose values the transmission occurring from the expert or peers to the learner (Gray, 2019). As critical discussions take place and gain in complexity, skills and knowledge transfer unfold while also contributing to the development of critical thinking. Finally, as stated by Schön (1985) and Goldschmidt et al. (2010), the critique's greatest ambition is to introduce learners to some of the fundamental principles of the discipline through a project. These interactions contribute significantly to shape the designer's thinking process and "to develop their own design values and preferences" (Christensen & Ball, 2016, p. 116).

By acknowledging the transformations that social distancing and online learning bring to design education, we question how the design critique has changed teaching and learning experiences. On that matter, Oh et al. (2013) wrote that "digital technology has radically changed the way studio teachers have conversations with students. In particular, critiquing modalities in digital design studios" (p. 312). Building on this affirmation, we organised an online questionnaire as reflection prompts and focusing on the distinctions between in-person and online critiques. The questionnaire was sent to all teaching workshop staff of the first and second years of the industrial and interior design programs offered at the Faculty of environmental design of University of Montreal (Canada). More precisely, we reached out to a total of 25 studio teachers and succeeded in collecting 11 complete questionnaires. All respondents were actively teaching in the online workshops at least once during the winter or autumn semesters of 2020 or the winter semester of 2021. All of these studio teachers (except 2) had previous experiences with in-person workshops, and, therefore, could easily compare both types of experiences.

A total of six reflective development questions (answers varying between 7 to 10 lines) were asked to the respondents:

- Please identify 3 advantages of conducting online design critiques.
- Please identify 3 disadvantages of conducting online design critiques.
- Do you feel that the critique activities carried out during online workshops require more preparation? Please explain why.
- What are the pedagogical impacts of online critique activities? Please explain why.
- Do you notice any changes in the social interactions between the teachers, with the students, or with the juries?
- Do you feel that the learning during these online review activities is equivalent to face-to-face critique activities? Please explain why.

Their answers are what we build on to propose the paths for reflections tackled in the next section.

The Challenges of Social Learning during Online Workshops

The analysis of the questionnaires allowed for the emergence of five different themes highlighting some of the challenges and benefits of online workshops. All elements discussed in the next categories emerged from the collected data. The themes are presented in a gradual sequence from the most to the least discussed in the questionnaires. The first category is related to the interactions occurring during the online critiques, mostly referring to the flow and ease of maintaining a live conversation online. The next two categories refer to the actors involved in day-to-day critiques: how teachers perceive students' involvement and what teachers notice regarding their tasks. The fourth category seeks to highlight the differences noted during the project unfolding. Finally, the last category is related to the use of technology to conduct critique sessions.

Interactions

Across all five categories, comments regarding online interactions stood out most from our analysis. The participating teachers all mentioned preoccupations about the lack of spontaneity in verbal expression, while some also added the challenges of communicating through drawing. Some did talk about the lack of informal exchanges to build links with the students, and the difficulty to entertain warm, diverse, and active conversations with them.

A recurring tendency was to note that there were fewer interactions with students and that these took more time. Limited access to body language, instant reactions, and on-the-spot questions do seem to add an important difficulty when proposing direct feedback to students, either in groups or alone. Teachers tend to use their interpretation of emotions and stress to modulate their comments and interactions.

Finally, a recurring reason that explains all of the noted challenges regarding interactions is the latency span of virtual communication software, which creates a fear of interrupting verbally or with surrounding noise (encouraging a majority of people to close their microphones). These technological limitations seem to break the flow of interactions and limit the exchanges with students during critiques. As a result, it is more difficult to confirm the comprehension of students and to get them to comment or discuss substantially.

Students

The second category regards students' attitudes during the critique. First of all, to build on the previous category, it is more difficult to keep students' motivation, interest, and attention during group critiques. Many respondents mentioned the challenge to get answers from the audience with long silent pauses, closed cameras, and the need to develop strategies to keep students active and involved. Some of these reactions are explained by screen fatigue due to accumulated hours of workshops or classes. A specific concern regarded the difficulty to ensure that all information and instructions were understood correctly by students.

Our respondents noticed a change in the significance that students attribute to these punctual events. In person, students attribute particular importance to mid- or end-of-project critiques as project milestones. For example, they use these opportunities to dress up and to prepare their speech, translating the significance they attribute to this event for sharing their work as best as they can. Still, online workshops seem to have diminished how students approach these

occasions. They seem to take criticism less seriously and are less trying to make a good impression. Moreover, pre-recorded presentation asks for less preparation on the part of the students.

The last observation about student behaviour is that they tend to share less with others. As they are more isolated, they have fewer occasions to exchange on their respective projects. Group dynamics are very difficult to create. Still, a benefit gained from online workshops is that students learn better how to work with distant teams, which is an essential skill for the work world.

Teachers

A few observations were made by teachers according to their daily teaching tasks. On the positive side, they noticed to be more physically comfortable while teaching, and that there was less preparation needed in terms of space organisation. Also, experts are more willing to participate to critiques since online participation is more convenient for professionals. Less positively, it was noted that coordinating between teachers was more demanding, that evaluations and feedback take more time, and that skills for animation and explanation are more solicited. Accordingly, demonstrations are much more difficult to entertain through a camera than in person.

Project

Regarding project processes and submissions, a lot of aspects were discussed as different from previous in-person workshops. While some stated that creativity was more limited, others invoked the difficulty to offer detailed feedback to projects. Online workshops make it more difficult to entertain a project process that is centred on materiality and mock-ups. Moreover, restricted visits on campus also limited interactions with technical workshop experts (metal, plastic, wood, etc.), which greatly contribute with their specialised knowledge to students' formation. Many other comments touched on the work submitted by students, being simplified, less original, and more generic. The difficulty to display projects for sharing with class colleagues suppresses a fundamental aspect of workshops, based on peer learning. More emphasis also seems to be offered to the quality of graphic presentations, instead of focusing on the industrial and interior design aspects of the projects. To conclude, the learning experience seems less active, more theoretical, and very different from in-person workshops.

Technology

The last category of comments identified in the answers to our inquiry touches on technology. Of course, all previous categories are concerned by technology, but some limitations are specifically technological, such as technical problems, unstable internet connection, and sound latency. Also, some restrictions are linked to the skills of a person to use technology (for example, being able to draw on the screen in real time). A last repercussion of social isolation is that most inspiration and research elements come from the Internet, while students are usually invited to visit spaces, interview potential users, observe behaviours, etc.

In summary, our investigation underlines the uncertainty and the lack of spontaneity that is associated with the change to online workshops. The loss of a shared common physical space has led to many important changes that should be addressed, as online workshops are going

forward. Moreover, it draws attention to the social nature of design (Bucciarelli, 1988) and the importance to interact with peers, teachers, and experts throughout projects by explaining, discussing, showing, or just looking at what others do. Some positive aspects of online learning have been mentioned (mainly regarding preparation and the development of teamwork skills), but preoccupations are mostly directed to the formality of interactions between the actors of the critique activity, leaving aside so many perceptual details of human exchanges. In order to underline the importance of sociality, observation, and engagement in design pedagogy, we wish to refer to Lave and Wenger's concept of legitimate peripheral participation.

The Loss of Informal Occasions for Critics

In their book on situated learning published in 1991, Lave and Wenger discussed how novices come to integrate into their future professional community (i.e. community of practice). A community of practice refers to a group of individuals sharing interests on the same subject, field, or domain. Their common interest allows them to "share experiences, ways of thinking about the work they do, and a network of connections that distinguish them from others" (Davies, 2016, p. 8). Lave and Wenger (1991) shared observations on how practitioners learn their skills by interacting and discussing with others as well as by participating and observing the daily activities of a community.

Fundamental aspects that attest to the integration of a community of practice are directed to the re-creation of practices, the acquisition of a shared vocabulary, and the co-creation of knowledge (Sawyer, 2012; Davies, 2016). Therefore, by observing the legitimate peripheral participation of individuals, we come to notice skill development in action through increased participation, autonomy, confidence, and accuracy of actions (Kvale, 2007). Lave and Wenger have argued that "social participation within the community is the key to informal learning" (Boud & Middleton, 2003, p. 194). While Lave and Wenger have studied the practice of diverse professionals, strong connections have been discussed with design training (Liem et al., 2017, Scherrer et al., 2017).

One important aim of design education is to introduce novices to the tools, the working processes, and the social environment of the discipline by progressively bringing students to be comfortable with the reality of their future community of practice. Critical interactions with peers, teachers, and experts are key for design education at every step of the learner's journey (Tessier, 2021). In that sense, the quality of the social space created between individuals occupies a key place for learning with and from others through informal exchanges and formal comments. Gray (2013) underlined the value of receiving critiques from varied sources (formal and informal). While formal critique is clearly positioned as part of the pedagogical design structure, "informal critique appears to be more emergent, mirroring the professional obligations to communicate and externally reflect with peers" (Gray, 2013, p. 703). In that sense, the creation of informal exchange spaces is crucial when planning online workshops, especially as students move through the stages of the design curriculum. Tessier (2021) has shown how the social structure of the workshop evolved from the first to last year of undergraduate design studies by first relying strongly on the teacher's advice, then developing stronger bonds with their peers, and, finally, getting in touch and connecting with experts from the field. These phases encountered by the students show the increasing complexity of their social relations, bringing them to enter their community of practice. Additionally, most of these

social relations are built through informal peer critiques, drawing special attention to that intricate aspect of online workshops.

Such a reflection about the foundations of design education makes us question the noted difficulty identified in regard to social interactions during online workshop critiques and the need to sustain the same quality and diversity of exchanges while using online platforms. Although some challenges to entertain social interactions during face-to-face workshops are normal (due to group dynamics, shyness, stress, etc.), they are nothing compared to the many efforts that are organised to entertain, sustain and generate interactions with students during formal and informal critiques. The studio teachers having completed our questionnaire mentioned many times the lack of spontaneity and absence of informal conversation with and between the students, which prevent the development of more personal and human relationships with the students. Moreover, as students were confined to their homes, informal meetings were exceptional and needed to be initiated by someone instead of happening randomly (no sharing lunch or coffee break, no bathroom conversation, and most of all, no workshop chatting). As mentioned by Jones (2021), “one thing the crisis did was make certain things visible” (p. 8). As some of these difficulties were already present with in-person workshops, they took exponential proportions in online learning environments.

Gray (2014) has shown how design workshops are built on a variety of formal and informal social interactions that contribute to the creation of the student’s repertoire. Still, in relation to online workshops specifically, we advise that particular efforts should be invested in creating convenient and spontaneous social spaces for learners to exchange between themselves or with teachers and experts. Receiving critique from more knowledgeable others is crucial but building relationships with peers and colleagues is what makes an undergraduate experience so unique. Moreover, the sense of confidence and respect can influence how students accept or interpret the comments they receive. As noted by Lave and Wenger, informal learning is key for the development of social disciplines. For example, some of our respondents noted positive repercussions when clusters of students are willing to leave their camera and microphone open while working. Such habits allow for informal conversations with workshop colleagues while developing a project and offering feedback. While they work on their project, students can learn more about each other on a personal basis, but also ask questions about technical aspects of their respective projects, share methods and offer or receive critics. This is strongly reminiscent of in-person workshops when students could share large tables and discuss while developing their respective projects.

This reflective paper on the shift to online learning and its impacts on design critiques has led us to think more globally about the sociality of design pedagogy. Critiques are a fundamental aspect of the designers’ education and contribute significantly to the lived experiences of design students. Their unfolding and organisation changed as online workshops were developed. Teachers tested new ways to motivate exchanges and stimulate discussions (i.e., pair up students in smaller groups, attribute facilitator roles, encourage written comments in the chat section, etc.). Still, further explorations should be directed at finding other ways of stimulating social interactions online. The collected data and present discussion have brought us to notice how much informal occasions to discuss and exchange have an active role in the

experiences of learners and teachers and how highly these occasions were affected by the shift through online workshops.

Conclusion

The past year has suddenly immersed us in a technological world that has completely transformed the way we interact with others. This significant change in communication intensifies certain aspects of teacher and student relations. According to our exploratory investigation, all teachers seem to agree that design critique is undergoing a major shift. While most of our respondents were wondering if the critique experience online is as complete as in person, we showed that virtual environments for teaching ask for adaptation and change in the teaching strategies and work methods. Uncertainty is sensed in the community, in part because previous experiences with online teaching are very limited. We feel that this consequential shift has led to an important reassessment of pedagogical design practices, which will hopefully inform in-person workshops in the future. In the end, informal interactions and learning from observation seem to be the most problematic aspects of online workshops. Efforts are needed to create strategies that enhance participation and create an environment conducive to share experiences and thoughts freely. As soon as this space exists, students will certainly be more likely to share their constructive comments during online reviews and informal occasions. For students, it means they will be more comfortable to give and understand feedback, and by extension, develop their critical judgement.

This reflective paper led us to consider the sociality of design training and the situatedness of its learning opportunities. Our questionnaire investigation also raised another concern that was outside the scope of this article and that could be researched further in future work. Combined with peer learning, workshop experiences also encourage learning by observation. As mentioned by Gray (2013), the “natural physical co-location of the studio environment” allows for informal learning, but what about when technology limits what can be seen and observed in action. This lack of proximity between students meant everyone in their own environment, preventing an important aspect of workshop peer learning. Although learning by observation is not directly related to design critiques, it does contribute to the informal social experience of the workshop by motivating students to get inspired by each other, share advice on their work methods, and spontaneously offer critical comments.

Acknowledgements

Our invaluable thanks to all of our colleagues who accepted to share their experiences and insights with us.

References

- Boud, D., & Middleton, H. (2003). Learning from others at work: Communities of practice in informal learning. *Journal of Workplace Learning*, 15(5), 194–202. <https://doi.org/10.1108/13665620310483895>.
- Bucciarelli, L. L. (1988). An ethnographic perspective on engineering design. *Design Studies*, 9(3), 159–168. [https://doi.org/10.1016/0142-694X\(88\)90045-2](https://doi.org/10.1016/0142-694X(88)90045-2).
- Christensen, B. T., & Ball, L. J. (2016). Dimensions of creative evaluation: Distinct design and reasoning strategies for aesthetic, functional and originality judgments. *Design Studies*, 45, 116–136. <https://doi.org/10.1016/j.destud.2015.12.005>.

- Davies, M. (2016). "Normal science" and the changing practices of design and design education. *Visible Language*, 50, 6–23.
- Goldschmidt, G., Hochman, H., & Dafni, I. (2010). The design studio "crit": Teacher–student communication. *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, 24(3), 285–302. <https://doi.org/10.1017/S089006041000020X>.
- Gray, C. M. (2013). Informal peer critique and the negotiation of habitus in a design studio. *Art, Design & Communication in Higher Education*, 12(2), 195–209. https://doi.org/10.1386/adch.12.2.195_1
- Gray, C. M. (2014). *Living in two worlds: A critical ethnography of academic and proto-professional interactions in a human-computer interaction design studio* [Ph.D.]. Indiana University.
- Gray, C. M. (2019). Democratizing assessment practices through multimodal critique in the design classroom. *International Journal of Technology and Design Education*, 29(4), 929–946. <https://doi.org/10.1007/s10798-018-9471-2>.
- Gunday Gul, C. G., & Afacan, Y. (2018). Analysing the effects of critique techniques on the success of interior architecture students. *International Journal of Art & Design Education*, 37(3), 469–479. <https://doi.org/10.1111/jade.12145>.
- Jones, D. (2021). Reflection: Making little things visible. *Design and Technology Education: An International Journal*, 26(1), 8–11. <https://ojs.lboro.ac.uk/DATE/article/view/2925>.
- Kvale, S. (2007). Contradictions of assessment for learning in institutions of higher learning. In D. Boud & N. Falchikov (Eds.), *Rethinking Assessment in Higher Education* (pp. 57–71). Routledge.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- Liem, A., Ruecker, S., & Alfonso de la Rosa, J. (2017). *Using studio teaching as an initiator for research collaboration in design*. In A. Maier, S. Skec, H. Kim, M. Kokkolaras, J. Oehman, G. Fadel, F. Salustri, M. Van der Loos (Eds.), *21st International Conference on Engineering Design (ICED17)*, vol. 9 (149–158). Design Society.
- Oak, A. (2000). It's a nice idea, but it's not actually real: Assessing the objects and activities of design. *Journal of Art and Design Education*, 19(1), 86–95. <https://doi.org/10.1111/1468-5949.00205>.
- Oh, Y., Ishizaki, S., Gross, M. D., & Yi-Luen Do, E. (2013). A theoretical framework of design critiquing in architecture studios. *Design Studies*, 34(3), 302–325. <https://doi.org/10.1016/j.destud.2012.08.004>.
- Sawyer, K. (2012). Extending sociocultural theory to group creativity. *Vocations and Learning*, 5(1), 59–75. <https://doi.org/10.1007/s12186-011-9066-5>.
- Scherrer, F., Lajoie, N., Abrassart, C., & Bastin, A. (2017). La conception innovante en urbanisme. Recherche-expérimentation pédagogique associée à l'atelier de maîtrise en urbanisme de l'Université de Montréal. *RIURBA*, 3(Jan-June), 23.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.
- Schön, D. A. (1985). *The design studio: An exploration of its traditions and potentials*. RIBA Publications Limited.
- Tessier, V. (2021). *Étude exploratoire sur le travail en équipe d'étudiants dans l'atelier de design : Vers un modèle d'évaluation pour l'apprentissage basé sur la théorie de l'activité et l'apprentissage expansif* [Ph.D.]. University of Montreal.

Valkenburg, R., & Dorst, K. (1998). The reflective practice of design teams. *Design Studies*, 19(3), 249–271. [https://doi.org/10.1016/S0142-694X\(98\)00011-8](https://doi.org/10.1016/S0142-694X(98)00011-8).

Zahedi, M., & Heaton, L. (2017). A model of framing in design teams. *Design and Technology Education: An International Journal*, 22(2), 8–25. <https://ojs.lboro.ac.uk/DATE/article/view/2264>.