



# Ideas Competitions as Means for Engagement and Dialogue: A Pedagogical Approach for Investigating Socio-Ecological- Technical Practices

*Carmela Cucuzzella and Morteza Hazbei*

## I INTRODUCTION

The development of innovative approaches for teaching sustainable practices in higher education can take on multiple pathways. Participatory design methods and frameworks that empower engagement and dialogue are crucial means to expand pedagogical approaches in design.

In this chapter, we investigate how “ideas” competitions could serve as a pedagogical tool enabling international and local dialogue on key issues of urban design through an inherently collective format. The ideas competition can promote engagement by grouping students, faculty, administrators, community leaders, and municipal decision-makers together in the form of a multi-stakeholder engagement, with the ultimate goal of

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C. Cucuzzella (✉) • M. Hazbei  
Concordia University, Montreal, QC, Canada  
e-mail: [Carmela.Cucuzzella@concordia.ca](mailto:Carmela.Cucuzzella@concordia.ca); [morteza.hazbei@concordia.ca](mailto:morteza.hazbei@concordia.ca)

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advancing sustainability practices in both the city and in higher education institutions (HEI). It is essentially an exploratory medium for advancing innovative practices (Lipstadt, 1989; Strong, 1996). Moreover, in organizing ideas competitions on an international scale, we can allow a plethora of students (with differing world views) to debate on alternative solutions to common issues that impact all cities (Kreiner, 2010). We propose that ideas competitions can integrate students in the sustainability dialogue and can allow them to propose innovative ideas for a university living lab and be part of an international collaborative design project (Bullinger et al., 2010).

This chapter specifically focuses on an international ideas competition we organized at *CoLLaboratoire*<sup>1</sup> in 2016 for a bus shelter, using it as a case study. We describe the concept of the ideas competition, the specific competition design, the multi-stakeholder governance structure, and the multiple opportunities it provided for collaboration and community visioning. In the conclusion, we highlight some lessons learned from the ideas competitions for Higher Educations Innovations (such as their benefit as pedagogical tools for advancing social engagement, innovative practices, and sustainable practices). Lastly, we elaborate on the potential of international ideas competitions as key pedagogical practices for universities to get international exposure, and we provide recommendations for HEIs to adopt these practices more broadly.

## 2 IDEAS COMPETITION

An ideas competition typically occurs when a private or public organizer sends out an invitation to the general public (or to a targeted group) to submit ideas which seek to solve a specific problem or issue within a specific timeline. An idea-reviewers' committee evaluates these contributions and selects the winner(s) (Walcher, 2007). This process usually involves a number of components: the organizer, the timeline, the incentives or prizes, the specification of a problem, the target group, the composition of groups, the media, the evaluation criteria, the idea review, the idea review committee, the complexity of the problem, the context of the problem, and the community needs (Nicolajsen & Scupola, 2020). Criteria such as novelty, relevance, feasibility, and specificity are often used to evaluate

<sup>1</sup><https://ideas-be.ca/project/collaboratoire/>.

projects, since ideas competitions typically aim to find innovative ways to problem solve (Blohm et al., 2010; Dean et al., 2005).

The tools used in ideas competitions may be used to rethink, comment on, encourage, and eventually create a new and different innovation orientation (Nicolajsen & Scupola, 2020). These competitions provide for a democratic and transparent innovation process, giving each stakeholder a voice to make comments on, bring up, and rank ideas, which directly influences the overall undertaking. Ideas competitions allow for open communication across communities, raising new values and ideas at a more satisfactory rate, as more often than not, large groups of people provide a greater breadth of ideas than an elite few, no matter how brilliant—groups are better at solving problems, fostering innovation, coming to wise decisions, and even predicting the future (Surowiecki, 2005). Bullinger et al. (2010) highlight what Friedrich August von Hayek (1971) stresses about the importance of competitions for technological and societal progress:

*As the individual knows little and in particular, because we rarely know who knows something best, we trust in the fact that independent and competitive endeavor of many will lead to things we will ask for once we see them.*  
(1971, p. 38)

Chupin et al. (2015) have argued that ideas competitions produce “potential architecture.” In other words, even if projects are never built, their ideas become inspiration for future projects (i.e., potential architecture). It is this characteristic of the ideas competition that motivates the proposed innovative pedagogical process. Furthermore, this becomes a promising approach for sustainable innovation, since competitions often seek ideas for processes that embrace “out-of-the-box” thinking for design in the built environment.

### 3 IDEAS COMPETITIONS AS COMMUNITY-ACADEMIC-CITY DIALOGUE

The ideas competition as a pedagogical device for advancing socio-ecological-technical practices is the basis of many research methods in the design disciplines. The advantage of the ideas competition format is that, along with the evaluation, judgement, ranking process, which provide a democratic and transparent innovation process, the competition format

increases visibility to certain issues as it is often heavily mediatized to reach a broader network of participants (Nicolajsen & Scupola, 2020). We propose that the ideas competition can be a means for open invitation enabling the documentation of new values and ideas.

We can see how the ideas competition format is promising not only for design innovation but for sustainable design innovation as well. If we look at the evolution of sustainable design pedagogy, it has largely involved the teaching of eco-efficiency or eco-innovations (Benavente-Peces, 2019; Figge & Hahn, 2004; Fletcher & Goggin, 2001; Jonas, 1979; Natural Resources Canada's Office of Energy Efficiency, 2016). However, it has become increasingly evident that eco-efficiency alone cannot solve the problem of unsustainability because it lacks any access to the crucial social and cultural dimensions (Cucuzzella, 2009, 2016; Rossi, 2004). When successful, ideas competitions can establish connections between academics, community members, artists, designers, architects, professionals, and business leaders, with the aim of generating a multitude of innovative ideas to more creatively address sustainability challenges in an integrated manner. The generation of alternative, even uncanny ideas through this process, makes it a promising process for deliberating on many imaginative ideas. It should be noted that ideas competitions are not always successful. When unsuccessful, ideas competitions do not achieve a broad reach, have mediocre idea submissions, do not make the connections across the various sectors of community, or awarded entries are highly contested.

Given these benefits, the *CoLLaboratoire*<sup>2</sup> initiative, a university-led unit dedicated to knowledge dissemination research, adopted the ideas competition format for the basis of its research protocol. This research project espouses the premise that using the ideas competition to address community knowledge regarding unsustainable habits can help generate a multitude of innovative ideas; ideas competitions can be emancipatory projects that result in an open dialogue (Jacobsen et al., 2011; Lahiji, 2016).

*CoLLaboratoire*'s main objective was to investigate how public space installations can help heighten community awareness to issues, questions, or solutions in regard to climate change. The initiative aims to examine how the inclusion of communities in places where the installations are embedded can contribute to a deeper collective understanding and embodiment of sustainable urban, professional, communal, and

<sup>2</sup><https://ideas-be.ca/project/collaboratoire/>.

humanitarian practices for the long term. Montreal, a UNESCO City of Design—with its hybridity of cultures, languages, urban dynamism, and its leading place in the history of sustainability—is a fertile place for such an experiment in sustainable living. By choosing the iconic Sherbrooke Street in Montreal, a vital artery for the city that has also historically been a center for some of the city’s most important cultural initiatives—that is, Corrid’art (Mathieu, 2016)—as its site, *CoLLaboratoire* aims to stimulate Montreal’s collective intelligence by helping people recover memories of place and environment on Sherbrooke Street in the City of Montreal (Fig. 1). *CoLLaboratoire*’s different design challenges may serve as elements of a path to a more sustainable and resilient future.

The broader societal impacts of the project are foreseen to include greater networks for mobilization at the community level, a better practical understanding of sustainable technologies for the public, the creation of potential product commercialization opportunities, and the development of toolkits for effective participatory design practices.

We have organized a series of competitions through the *CoLLaboratoire* initiative, which have been published in the Canadian Competitions Catalogue.<sup>3</sup> The cataloguing and archiving of the ideas from a competition, whether they spawn from winning entries or not, creates a public dialogue between architects, designers, businesses, procurement departments, and the general public. The ideas competition is a means to develop public engagement and awareness on some issue, in this case, the issue was that of the unsustainability of urban mobility (Lahiji, 2016).

So far, the three competitions<sup>4</sup> developed through the *CoLLaboratoire* initiative have helped researchers reflect on how architecture and spatial practices—through their structures, formal qualities, and representational approaches—enable designers to creatively address questions of climate change. All three competitions were targeted at design, architecture, landscape, and urban students around the world. Universities everywhere used these competitions as a pedagogical exercise, since the questions put forth in the competition design brief were pressing regardless of location. The global reach of these initiatives allowed for the opportunity to understand

<sup>3</sup> <https://www.ccc.umontreal.ca/index.php?lang=en>.

<sup>4</sup> Carmela Cucuzzella (2015), “Projects of the IDEAS Research Chair and the Collaboratoire Initiative,” Concordia University, <https://ideas-be.ca/project/collaboratoire-solar-powered-bus-shelter/>; <https://ideas-be.ca/project/collaboratoire-more-than-waiting-for-the-bus/>; <https://ideas-be.ca/project/competition-reimagining-public-transport/>.



**Fig. 1** The urban corridor of Sherbrooke St. looking east on Sherbrooke Street from Redpath Street: (Top: circa 1940, Bottom: 2020), © Creative Commons

how young minds from differing cultures and world views would address the problem. In the most recent competition,<sup>5</sup> over 500 students participated.

These experiments (communal, academic, and pedagogical) facilitated the conception of unconventional designs for the relevant urban installations. More importantly, these types of challenges allowed for a bridging of the gap between different modes of knowledge, (e.g., between the general community and academics). There is a pressing need for the institutionalization of sustainable practices and for a move toward more sustainable cities. Additionally, through potential future implementation in the city, these projects can become not only a cultural production for the community but elements of a living lab that help transfer practical knowledge about innovative technologies and sustainable practices.

#### 4 THE NEED FOR GENERATING PROGRESSIVE IDEAS GIVEN THE HISTORY OF SUSTAINABLE PRACTICES

Since the 1960s, designers have been working ardently to address the pressing and complex environmental questions of their time. In the 1960s, the drive toward holistic approaches of public and individual human settlements gave rise to the idea of environmental design as a means to transcend the boundaries between various design disciplines (i.e., architecture, landscape, urban and product design) (Rapoport, 1969). This first “environmentalism” culminated, among other manifestations, in the formation of the *Environmental Design Research Association* (EDRA) founded in 1968.<sup>6</sup> In the 1970s, environmentalism started to shift toward an ecological ideology that would soon be dominated by technical solutions (Jonas, 1979, 1985). This shift coincided with the energy crisis; therefore, environmental design began to abandon the holistic approach in favor of new methods that would help designers reduce energy used in all phases of their designs. This technological turn initiated and improved upon methods looking to constantly maximize efficiency, but it did so without much reflection on the consumption habits that were being encouraged (Fletcher

<sup>5</sup>Carmela Cucuzzella (2015), “Projects of the IDEAS Research Chair and the Collaboratoire Initiative,” Concordia University, <https://ideas-be.ca/project/competition-reimagining-public-transport/>.

<sup>6</sup>Amos Rapoport (1969), Environmental Design Research Association, <http://www.edra.org/content/history>.

& Goggin, 2001). At the turn of this century, the technological emphasis on efficiency, which developed systematically throughout the 1980s and 1990s, started to reveal its limitations (Cucuzzella, 2009; Papanek, 1995; Rossi, 2004).

Even though this history is not linear, we can identify *three general stages*: environmental design as holistic practice (1960s), the technological turn (1970s), and the normative turn (1990s) (Cucuzzella, 2019). The normative approaches to urban sustainability represent a top-down approach to addressing sustainable design. Since the 1990s, achieving sustainability in the built environment has most often been associated with environmental management approaches because of their ability to assess specific eco-efficiencies, energy performance optimizations, or improvements in buildings and infrastructures (Huppel & Ishikawa, 2007; Preiser et al., 2015). The effectiveness of strict adherence to these approaches, however, was called into question (Alcott, 2008; Herring & Roy, 2007; Madlener & Alcott, 2006; Sorrell, 2007). We categorize here the limitations faced by the emerging methods and tools developed at the time. These limitations to address both global and local environmental degradation can be attributed to three general areas.

*First*, the prescriptive or normative nature of the earlier tools left little room for profound exploration in innovative solutions. We have observed that with sustainable architecture projects for public buildings, it is the tried-and-tested proposals that are provisioned rather than more experimental ideas (Cucuzzella, 2016).

*Second*, their predisposition to fragment the given problem through very rigorous and numerous analytical tools for the various portions of the project results in very little thought being given to the encompassing situation (Farmer & Guy, 2005; Farmer, 1996). This disconnect between the analyses of the many parts and the whole project has been problematic, especially in terms of synergies and coherence.

*Third*, the profound problems facing humanity cannot be solved through technology alone, since we can no longer ignore questions of degrading social or cultural conditions (Benaim et al., 2008; Stirling, 2006, 2007). Facing a problematic integration of both social and cultural dimensions, the technological approach has revealed a contradictory opposition between form and meaning, between aesthetics and ethics, and between process and content (Brouwer et al., 2012). Many scholars now underline that these missing inter-subjective dimensions may be



compromising the very idea of holistic environmentalism in various realms of knowledge and action (Fisher, 2008; Spector, 2001).

The ideas competition provides a means to not only generate a multitude of alternative and experimental ideas, but to bring the conversation to the international community. It can even have a didactic role through this enlarged dialogue on key issues through the generation of ideas. The ideas competition becomes a type of expansive learning opportunity within the contributing community as well as to the community in which the ideas are shared (Asif et al., 2004; Engeström, 2001). According to Engeström,

Expansive learning is initiated when some individuals involved in a collective activity take the action of transforming an activity system through reconceptualization of the object and the motive of activity embracing a radically wider horizon of possibilities than in the previous mode of activity. (Engeström, 2003, pp. 30–31)

If we return to the question of climate change and its projected catastrophic global impacts, a rethinking of some of the predominant international discourses and their limits becomes imperative. We have seen that adopting environmental certifications in a strict manner often leaves innovation and quality in the margins (Cucuzzella, 2013). The ideas competition prioritizes dialogue and collective intelligence and therefore is a promising pedagogical approach for investigating socio-ecological-technical innovations and practices (Jacobsen et al., 2011; Kreiner, 2010). The ideas competition has a long-standing experimental tradition (Lipstadt, 1989), one that is rife with debate and dialogue among a variety of representative stakeholders (Bullinger et al., 2010; Cucuzzella, 2020; Ebner et al., 2009; Markey-Towler, 2019). Given this context, our hypothesis states that the collective and reflective approach of the ideas competition brings together the exchange of a variety of values and ideas, valorizes community intelligence, and sustains a dialogue on the issue. The case study presented in this chapter was unsuccessful in that the ideas generated to reinvigorate the neglected public spaces never reached the ears of municipal officials to become a reality. However, the ideas competition was successful in terms of its international reach, which in and of itself, showed the importance of the problem at hand.

This chapter seeks to determine how the inclusion of the broader international community can contribute to a deeper understanding and

embodiment of sustainable practices for the long term. In the next section, we explore this question by observing the diversity of outcomes of CoLLaboratoire’s “More Than Waiting for the Bus” ideas competition.

## 5 IDEAS COMPETITIONS AS KEY FOR COLLABORATIVE DESIGN

The “More Than Waiting for the Bus” competition was launched in 2017 and it centered on generating ideas about how to render public transport more enticing. It asked students from around the world how they would think about designing the spaces surrounding bus stops. These spaces are often neglected and have the potential to be animated in innovative ways. We selected four specific sites located in the east end of the city of Montreal as the spaces for the submitted ideas. This ideas competition also sought both ideas and principles, more specifically: (1) drawings of innovative ways to reinvigorate the spaces surrounding the bus stops, and (2) a series of written design principles adapted for the future planning of sites surrounding bus stops. The principles aim to generalize the underlying approach of the ideas.

The fundamental idea was to use the space in ways that would inspire citizens to use the bus all year long. The question we asked in the design brief was: What if the public spaces surrounding bus stops are used in ways that inspire citizens to change in some way, while waiting for the bus? These spaces are everywhere in the city as there are more than 8000 bus stops in Montreal. The expectation was that the submitted ideas would contribute to urban sustainability by proposing ways to enhance the public transport experience, engendering urban sustainability and reducing carbon emissions through the potential increased use of the public transit system. Students could submit to a single site or to all four sites. One winner was selected for each site, as each site presented very different urban problematics regarding small neglected spaces.

This ideas competition provided many opportunities to connect with the local community and international student populations. This is the basis for the *CoLLaboratoire* initiative ideas competition format to mobilize international and local actors and build strong networks. At the local level, we organized a series of meetings that were recorded and shared on social media for a larger dialogue among students that wanted to contribute ideas. These exchanges between local and global communities enabled

rich debates about the dire need of intervention and the terrible state of the original sites. Furthermore, these dialogues enabled the exchange of a variety of values across the local community. This local–global dialogue was the first of four opportunities for community exchanges.

The second opportunity for exchanging ideas was the actual ideas submissions by the international community of students. The competition received over 96 projects by 72 teams from more than 20 countries. Overall, the projects explored environmental questions in many ways, including modularity, playfulness, urban place making, seasonality, information and knowledge transfer, ease of deployment, flexibility, conservation of nature and structures, exploration of the senses, security, and water management. For site 1, the winning team presented a system of highly elegant, flexible, and easily deployable reading cabins which could be used year-round. For site 2, the winning team proposed an adaptable and interactive luminous forest. For site 3, the winning team presented a unique project that integrated the issue of municipal water management into the bus stop site and proposed to mitigate its considerable environmental implications. For site 4, the winning team proposed a full-body experience that could operate at the scale of the site (Fig. 2).



**Fig. 2** The winners for each of the four sites: top left: Site 1; top right: Site 2; bottom left: Site 3; bottom right: Site 4. © Carmela Cucuzzella + Jean-Pierre Chupin 2021

These ideas were evaluated and judged by a panel comprised of academics, community leaders, citizen representatives, municipal leaders, architects, and urban planners. We show the winning entries for each of the four sites in Fig. 2. Since we asked the competitors to submit drawings and the design principles underlying their ideas, the entries to this competition aimed to construct a debate on how to best increase public transport use. The principles were a topic of discussion and debate in terms of selecting the winning submissions. Therefore, the third opportunity for dialogue was among the diverse set of evaluators that comprised the jury.

In order to honor the winners (as well as all the entries to this ideas competitions), we organized a presentation of the winners and honorable mentions that took place with a simultaneous exhibition of all the entries.

The selected ideas won, not only for their innovative design but for the generalizability of the principles they proposed. Thus, the evaluation of the submissions considered each project's innovative approach, its potential for sustained interest in the renewed activity it proposed, and the generalizability of the principles it suggested for the broader community.

## 6 IDEAS COMPETITIONS AS KEY COMMUNITY VISIONING DEVICES

What was the aftermath of the ideas and principles from this ideas competition? How did new findings arise from this body of knowledge? It must be highlighted that the competition ultimately provided a means to construct a public debate on how to best increase the use of public transport in Montreal.

This format of the competition, which considered both ideas and their principles, made it possible to design a “journey of ideas,” addressing issues such as the afterlife of the many ideas after the competition event was over or the transposing of these same ideas from one project or context to another. For example, the ideas from the competition were materialized in the form of an ideation game which we developed with the drawings and principles of submitted projects. This Stakeholder Ideation Game (SIG) is intended for community and municipal planners and aims to encourage non-architects to imagine and discuss the various ways in which they can design public spaces in Montreal. We organized the SIG in three main levels of play.

We used the drawings of unbuilt architecture as illustrations of potential programs. Competition panels were deconstructed and reassembled along three levels to create the game. The first level is comprised of the basic features from which we extracted singular ideas. The second level is comprised of a series of combined features, composed of at least two types of ideas. This enables participants to mix and match combinations of features together to create more complex site designs. Lastly, the third level is comprised of the full spatial compositions detailed by the complete, submitted drawings (Fig. 3). These full spatial compositions are included in case some participants require guidance for developing more complex compositions in their designs.

Citizen organization representatives, municipal authorities, and the general population can employ the Stakeholder Ideation Game (SIG) as a method to stimulate debate and dialogue regarding the design of specific urban sites. Eventually, the drawings and principles generated through the game become elements of deliberation and are used in the exchange of

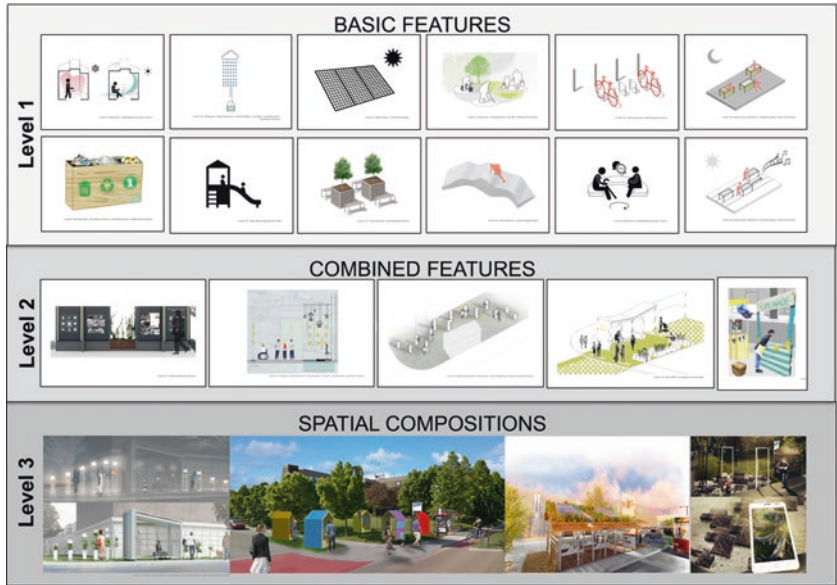


Fig. 3 The three conceptual levels of the proposed game of public space ideation for non-designers. © Carmela Cucuzzella + Jean-Pierre Chupin 2020

ideas, allowing non-architects to illustrate their plans using architects' drawings. This particular version of the SIG board game used printed drawings. We developed a game based on three levels. The hypothesis was that if we started with simple elements and escalated the complexity of the ideas through the next two levels, this would enable participants of the game to become deeply engaged in the emergence of new ideas founded on components of the ideas from the competition. We saw that the three different levels of detail in the drawings helped to accelerate the emergence of new ideas among actors involved in the design process. These new ideas were the outcome of drawings of previously generated unbuilt projects of this ideas competition—which were drawings representing ideas vastly different from the questions we developed with the participants of the game. The expected outcome of this first SIG encounter was the development of a preliminary program for the design of public space. Thus, the renewed embodiments of the original ideas from the “More Than Waiting for the Bus” competition could live on as key ideas in the brief of a new call for urban design proposals.

In a final effort to generate another form of dialogue, we studied how we could translate and retranslate the ideas embedded in the drawings and texts of competition proposals to create new ideas and core elements of knowledge exchange. We intended to explore a possible fifth stage of sustainable design practices. What was fascinating about the process was the ease and excitement with which the participants used the three different levels of drawings to develop a variety of innovative combinations of sustainable features. With great ease and fun, participants combined diverse design elements (through the selection of different cards) that may not have typically been chosen together.

We also collected the most promising principles and ideas and published them into a guidebook, in 2021 (Cucuzzella et al., 2021). This guidebook includes the best ideas and principles, and it categorizes them into sections focusing on social, cultural, well-being, environmental, and technological aspects. This guidebook was made freely available to the city and its citizens as a social project to enable further dialogue at the local level, which further rejuvenated other small neglected public spaces. This was the fifth opportunity to engage the community in a dialogue in an effort to co-design their own public spaces.

We developed this guide for collective use by designers, planners, policymakers, and communities who were interested in designing the sites surrounding urban bus shelters. Figure 4 depicts four pages from this



**Fig. 4** Extracts from the Best Practice Guide “More Than Waiting for the Bus,” published and openly available (2021). © Carmela Cucuzzella + Jean-Pierre Chapin 2021

guide, each one representing a principle and its corresponding idea. This guide, distributed via open access in 2021, is expected to provide ongoing support to the game and the community.

Throughout this experiment, we considered the comparative nature of the complex duo of “drawing + principles” as crucial for including non-architects in the design process. These principles were categorized to orient our understanding of the potentialities of the ideas into five areas: the social, cultural, ecological, technical, and well-being.

This example of how drawings of unbuilt architecture can allow non-architects to create new ideas is only one of the various ways that competition drawings can find a fertile afterlife. The guidebook provides principles coupled with illustrations offering a basis for a conversation with the community to rethink spaces in other parts of the city or even in other cities worldwide. Original drawings can become cultural products and elements

of a living lab, transferring practical knowledge about innovative technologies and sustainable practices. The recursive translation of ideas using comparative collaborative debate is a key methodology to solve the complex issues that cities must tackle.

## 7 CONCLUSION: PEDAGOGY FOR SUSTAINABLE PRACTICES THROUGH THE *IDEAS* COMPETITION

This ideas competition sought ideas and projects from international student designers, artists, architects, urban designers, and so on to reinvigorate public spaces surrounding bus stops in Montreal. The chosen slogan, “More Than Waiting for the Bus,” invited students to reflect on contemporary approaches that could help invigorate these spaces in interactive, poetic, critical, and meaningful ways: from solely utilitarian to more multi-purposed spaces. This community/academic experimentation through public art-architecture installations helped find unconventional ways for design students and community members to better reflect on questions of climate change. Such a project may also uncover some of the contradictions of the prominent practices of what is termed ‘sustainable’ design today—but this is only observable once the installation is adopted and used by the community over the course of the next few years. Therefore, such a project is not only a cultural production for the community, it also is a living lab, a dissemination project of innovative technologies and uses of technologies. Such a critical practice is key to help bridge the gap of collective intelligence so deeply needed for moving toward sustainable cities.

This case study of the ideas competition for “More Than Waiting for the Bus” was an exploration of just how much the ideas from an international student competition can be used as a source of inspiration for engaging discussions. This is not only for the students globally who contributed to the conversation by taking part in the competition or observing its outcomes, but also it is a resource to encourage ongoing and continuous conversations between the city, the community, and other design and development professionals. This case study became an opportunity to discuss ideas that would not normally be a part of the professional development of the highlighted urban spaces.

Ideas competitions also provide a means to innovate the pedagogy of sustainable practices. They can motivate students to participate in



collective conversations, regardless of how unconventional their ideas may be. These students, who will eventually become industry professionals, will appreciate the power of ideas competitions in generating innovative ideas. Furthermore, the ideas competition as a model combining competition and cooperation is seen as a driver for innovativeness (Bullinger et al., 2010). In this regard, the ideas competition has become an interesting field for both academic and professional pursuits. The practical use of ideas competitions, however, contrasts with the restricted body of academic knowledge in the field (Bullinger et al., 2010). Indeed, in the public sphere, individuals frequently use drawings and words to communicate ideas, if the community adopted and incorporated ideas competitions on a societal scale, the generated ideas could become institutions (Markey-Towler, 2019). Therefore, the incorporation of these devices (i.e., ideas competitions) in the pedagogy of higher education can enable this exchange of ideas both locally and globally, enabling this large-scale dialogue to take place.

In closing, the ideas competition constitutes a powerful observatory for the study of cycles of potentiality. We have outlined five opportunities for debate and dialogue with this ideas competition model. This example of how competition drawings, ideas, and principles can allow non-architects to create new knowledge is only one of multiple forms of the basic elements of design challenges. Even if we haven't fully unveiled their complexity, we have shown how ideas and principles—even losing ones—can present elements of constructive and meaningful conversations about sustainable living. Indeed, this model is promising as a means of teaching innovation for sustainable practices.

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