

International collaboration and connections through design thinking: A case study of the Global Classroom for Democracy Innovation (GCDI)

Matthew Wingfield ORCID: 0000-0002-3974-4694	Sociology and Social Anthropology, Stellenbosch University, Stellenbosch South Africa	mattwingfield5@gmail.com
Jesi Carson ORCID: 0009-0007-6726-7112	Vancouver Design Nerds, Vancouver, Canada	Jesi@designnerds.org
Mukisa Mujulizi ORCID: 0000-0002-1913-6544	Cape Town Design Nerds, Cape Town, South Africa	Mujulizi1@gmail.com
Bettina Von Lieres ORCID: 0000-0003-3011-3471	Global Development Studies, University of Toronto, Scarborough, Canada	Bettina.vonlieries@utoronto.ca
Marco Adamovic ORCID: 0000-0003-4274-3884	Ontario Institute for Studies in Education (OISE), University of Toronto, Toronto, Canada	marco.adamovic@utoronto.ca
Laurence Piper ORCID: 0000-0002-0061-0736	Urban Planning and Development, University West, Trollhättan, Sweden Political Science, University of the Western Cape, Cape Town, South Africa	laurence.piper@hv.se
Wilma Lundqvist Westin ORCID: 0000-0001-5165-263X	Urban Planning and Development, University West, Trollhättan, Sweden	wilma.lundqvist-westin@hv.se

ABSTRACT

This paper is based on the collaborative development of the Global Classroom for Democracy Innovation (GCDI), and its month-long virtual pilot workshop, the 'Climate Change Design Jam'. The GCDI is an integrated learning partnership between three international universities located in Canada, South Africa, and Sweden, and civil society partners the Vancouver Design Nerds (VDN). Each partner brought unique skills to the GCDI, as new processes and methods for virtual, global student engagement and dialogue were co-designed. The GCDI hosted the Climate Change Design Jam over four consecutive weeks in March 2022. By employing a design thinking methodology, it facilitated online student project development around the interconnected and broad topics of climate change and democracy. Students and student facilitators were guided through the process of design thinking to develop grounded projects that address climate change issues locally and internationally. This paper argues that fundamental principles of fostering genuine connections (both 'online' and 'offline') between students can act as a useful foundation from which project development can be based. Further, this paper illustrates that when faced with 'wicked problems' such as climate change and challenges to democracy worldwide design thinking methods and collaborative approaches can act as a catalyst for action (Manzini, 2015). Exploring political theory, democracy, and civic agency through dialogue and co-design provides students with innovative approaches to research, critical thinking, and activism. This pilot series provides insight into student engagement across international contexts, and thus the development of cross-cultural and collective intelligence which can be formative for similar projects in the future (Behari-Leak, 2020).

Submitted: January 17, 2023

Accepted: November 8, 2023

Introduction

By presenting a case study from a project entitled the GCDI, this paper argues that equity-centred design thinking can act as a connector for critical global learning, and curricular/co-curricular integration. It will demonstrate the possibilities of a feedback loop between the curricular and co-curricular, as well as reciprocal global partnerships between educators and students; it will further illustrate how these enhance teaching and learning and pedagogical practice more broadly. By drawing on the outcomes of this pilot project between three Higher Education Institutions (HEIs) from around the globe, this paper explores the connections that can be developed between internationally distinct curricular and co-curricular spaces which can lead to mutually beneficial insights and practices not only between these sites but also between institutions that are differently resourced, in terms of institutional and financial capacities¹.

Over the course of the past 15 to 20 years, a paradigm shift in teaching and learning has taken place (Starke-Meyerring and Wilson, 2008; Patterson, Botero Carrillo & Solano Salinas, 2012; Bégin-Caouette, 2013; Lock, 2015; Gachago, Bali & Pallitt, 2024), in terms of location and mode of learning. The COVID-19 pandemic compounded this shift considerably with respect to online and global learning spaces. At the same time, the localised concerns and issues once associated with and located within national borders have shifted to become more collective concerns - climate change and public health are useful examples. This dynamic has forced educators to reconsider how to prepare students to develop the appropriate skillsets to collaborate and problem-solve across contexts, and to participate in shaping the response and solutions to these challenges.

Along with this shifting educational paradigm, “a new generation of young people with changing definitions of leadership in a changing world is also emerging. They are not interested in charismatic leaders showing them the way; they want to do it themselves or in partnership with others” (Longo & McMillan, 2015); this is true both pedagogically and politically. This is particularly true when presenting students with “wicked problems” (Lehtonen, Slonen, & Cantell, 2016; Sun & Yang, 2016), or even a “super wicked problem” (Cross & Congreve, 2021), which denotes the connected, compounding, and borderless nature of these problems. Such problems are characterised both by their complexity and the interdisciplinary approach needed to address them. Institutions are now

¹ Throughout this article, we use the terms ‘Global North’ and ‘Global South’ to not only speak to the geographic location of an institution, but also to the capacities, resources, and financial and intellectual resources that distinguish between institutions. We use these terms not to reify perceived differences, but to articulate the unequal nature of how institutions and their students interact in global fora.

more than ever seeking innovations in providing relevant global and international experiences for their students (Taylor, 2004). This energy, ambition, and desire must be activated and encouraged to support learners in global classrooms.

Within the structures of HEIs, however, curricular and co-curricular spaces remain separated and placed structurally in competition with one another. As Stirling & Kerr (2015) argue, co-curricular programmes are those that supplement what is learned within the classroom or lecture hall space, and which more explicitly develop a range of competencies and capacities not focused on in curricular spaces. Emphasis is put on experimental learning, which is not the focus of many curricular programmes (Stirling & Kerr, 2015: 2-5). Curriculum instructors are often unable or unwilling to engage the co-curriculum in meaningful and logistically practical ways, and at the same time, students are often faced with weighing the multiple opportunity costs which accompany decisions to participate in seemingly endless offerings and co-curricular opportunities (Wankel & Wankel, 2016). The rapid and relentless shift to internationalise both curricular and co-curricular offerings has further added to these stressors. From academic staff to those working in the co-curricular space, the implementation of co-curricular programmes in HEIs has largely reproduced hierarchical international power relations, which act to reinforce the politics of knowledge production, as seen in the curricular space (Behari-Leak, 2020).

Global classrooms, defined not solely by their international reach, but as offerings that link students, peers, instructors, experts, and communities across contexts (Adamovic, 2019), may provide a host of opportunities through which students can be connected, learn from and with each other, and develop new knowledge in innovative ways. These spaces can also be marked by power imbalances. Nonetheless, the reality is increasingly clear that technology alone cannot create meaningful learning environments, experiences, or the skills needed to truly develop a global mindset. It remains the pedagogical philosophy and practice of educators which determine how, or even if, learning can be educative, let alone transformative. Global classrooms are thus defined as “learning environments that ultimately can prepare learners to engage in the kind of knowledge-making needed to address pressing global questions, such as environmental crisis and social injustice” (Starke-Meyerring & Wilson, 2008: 7). These spaces are seen as distinct from curricular spaces, having a specific function and offering a range a potentialities that are not within the immediate scope of formal curricular pedagogical spaces.

Locating the politics of (co-)curricular knowledge production

There has been a long-held critique concerning the politics of knowledge production within the curricular space and within HEIs more generally. Such debates have come into vogue concerning the decolonising of HEIs in general, where critiques against colonial regimes and forms of epidemic violence (Brunner, 2021; Mbembe, 2021) have been formed. In this, scholars have attempted to map the numerous ways in which the project of “modernity” aimed to control and suppress alternative or “other” forms of knowing (Mbembe, 2021). Furthermore, as illustrated by Demeter (2020), knowledge production is deeply embedded within contexts of financial resources, which are typically located within the Northern Hemisphere. This is evidenced in a range of ways, from unequal and misrepresentative academic outputs (Collyer, 2018) to those that are gatekept by “old boys clubs” which seek to maintain control over the nature and content of publications (Dada, van Daalen, Barrios-Ruiz, Wu, Desjardins, Bryce-Alberti et al, 2022); furthermore, practices that favour certain types and origins of knowledge, as Foucault (1977) has famously argued, are also apparent. However, such power dynamics are not isolated to the curricular space.

Elements of the decolonial turn in academia (Pande, Chaturvedi & Daya, 2023) which aim to map and contest both epistemic, social, and financial power dynamics around knowledge production often focus on the curricular space; however, similar patterns, power dynamics, and processes play themselves out in the co-curricular space. Not only has the entire co-curricular space been positioned as something out of the core focus of HEIs, but furthermore has seemingly reified the power dynamics and dichotomous framing of the institutions in the Northern and Southern Hemispheres. As Boughey & McKenna (2021) argue, structural inequalities within and between international partners can be perpetuated through both social and technical means in the co-curricular space. Kasturi Behari-Leak’s (2020) keynote address at the 16th annual conference of the International Society for the Scholarship of Teaching and Learning (ISSOTL) provides a useful entry point through which to think about these dynamics.

Through a discursive exploration and analysis of “Borders” both analytically and practically, Behari-Leak illustrates the entrenched bordering that is pervasive throughout academia. From the borders between the curricular and the co-curricular, to the borders between the geographically separated institutions, thinking around, between, and across borders proves to be a useful analytic. The GCDI thus inserts itself as a project that aims to disturb various borders, such as those considered above,

while in the process hoping to reformulate ways of learning and teaching across contexts that can empower students and staff in various locations.

Pilot Design Jam

The origin of the GCDI is located in collaborative research between Von Lieres and Adamovic, which explored foundations and innovations in inclusive global classrooms. This developed into a pilot event which took place in March 2020 during the height of the COVID-19 pandemic. This event was organised by the Department of Global Development Studies, University of Toronto Scarborough (Canada) and Stellenbosch University (South Africa). The VDN, a Canadian non-profit society specialising in design thinking and participatory engagement, was hired to co-design the process and facilitate the pilot along with the event organisers. The issues of food scarcity and food sovereignty were thrust into global focus during COVID-19, which thus became the thematic driver behind this prototype event. By engaging civil society organisations and activists working on “food issues” in both Toronto and Cape Town, students from both partner institutions were connected in real-time conversation through Zoom, while utilising design thinking. After engaging the speakers through active listening and mapping on MURAL, a digital whiteboard app, dialogue between students from each context was fostered as they discussed and analysed a few key questions. The overwhelmingly positive feedback received from this pilot event led to the establishment of a more formalised project, namely the GCDI.

While the first pilot event was received positively, the organisers of the GCDI remained cognisant of the power dynamics that inherently play out in global pedagogical spaces. These range from the differences of preparedness and experience in co-curricular spaces, to practical/technical/economic concerns around data, access to laptops and computers, and quiet spaces from which to join the meeting. As argued by Czerniewicz, Deacon, Small, & Walji (2014), while transnational pedagogical spaces can produce a range of possibilities around student engagement and co-learning, there is a risk of perpetuating and entrenching educational divisions, North/South power dynamics, and hegemonic knowledge systems. Through the use of strategic feedback sessions and the constant presence of a trained peer facilitator to guide engagement, the GCDI aimed to challenge these divisions. Furthermore, the positioning of such courses and opportunities needs to be carefully thought through, otherwise they run the risk of being designated as non-essential additions to students’ educational development. The GCDI aimed to engage these questions head-on, as students who formed part of the pilot project relayed that they had found the space useful to engage questions that they had dealt with, to some degree, in both their academic and personal lives, albeit on a limited basis. Further, the

GCDI held a student focus group in October 2021, which provided space for students to provide direct input into future iterations of the project. These were students who had participated in the pilot, as well as students generally interested in internationally networked learning environments. With student input at the core of the project, the emphasis of the formation of the GCDI was thus focused on addressing such contested borders by developing closed feedback loops between the two spaces. This was facilitated by the academic staff members at each of the partner institutions.

Developing a truly 'global' classroom

The first iteration of the GCDI held in March 2022 aimed to formalise the institutional relationships fostered in the pilot event. A new partnership was also made with University West (Sweden). All three institutions offered the GCDI as a co-curricular opportunity, with varying ranges of integration between the curricular and co-curricular. The theme of the GCDI aligned with the courses taught at the partner institutions, which provided an opportunity to take a range of questions from the curricular space and have students engage with them on a collaborative and practical level. Furthermore, the movement of feedback and engagement did not only take place in a singular direction, from the curricular to the co-curricular; the feedback and insights gained from students after the four-week engagement was integrated into the curricular space (as part of assessment and pedagogy), developing a cyclical and iterative feedback loop.

The question of the relationship between the curricular and co-curricular is not only an essential one for instructors and educators to engage in but further influences holistic student development. In a strong diversion from mainstream academic pedagogical practices, the role of the co-curricular space can account for the shortcomings of assignment-based learning in the curricular space. It leverages "learner-centred approaches, along with technical advances" (Wankel & Wankel, 2016:4), to foster engaged and experiential learning. Consequently, the GCDI incorporates three types of learning (transmission [knowledge being transferred such as in a lecture hall], transaction [knowledge gained through a process of completing tasks or other requirements], and transformational [learning that aims to alter the student both intellectually and personally]), which when combined, build an inclusive framework and learning environment to support holistic student development (Miller, 1998: 47). Recognising that certain information and tools are required to move forward in problem-solving, we center both transmission and transformation. In this way, we "see our work as more than just preparing students to compete with one another...we need a broader vision of education that fosters the development of whole human beings" (Miller, 1998: 48).

The GCDI internalised such prompts, as it sought to not only engage the curricular/co-curricular dichotomy, but also the power dynamics which embed the interactions in internationally collaborative online spaces (Czerniewicz *et al.*, 2014; Lock, 2015). Students who are targeted to participate in such courses often question the placement of the co-curricular in their overall development, along with the nature of academic rigour which underlies such engagements (Wankel & Wankel, 2014).

Locating and foregrounding design thinking

The feedback received from the pilot event illustrated the capabilities and strengths of using design thinking as a tool to guide interactions in such collaborative spaces. Design thinking subsequently became a central component of the larger project. Design thinking, while becoming increasingly popular throughout all spheres of society, has come under contestation regarding its elements and function (Dorst, 2010; Manso & Garzon, 2011). The GCDI project and its focus on engaging power dynamics and the dichotomy between the curricular and co-curricular spaces has been made possible by the partnership with the VDN. Since 2004, the VDN has run a range of “Design Jams”, mostly in person, through using design thinking and frameworks such as the “Double Diamond” design process, popularised by IDEO and the United Kingdom (UK) Design Council. While various definitions of design thinking exist, we have understood design thinking as a “framework for complex, iterative and targeted solutions: It emphasises the need to define the problem well and build sooner to get better feedback” (Hill, Molitor & Ortiz, 2016:1). This procedural and systematic framework offers structure to the development of projects, as is central to the GCDI.

The focus on both accurate problem definition and the development of feedback loops speaks to the foundation of the GCDI project. As we have sketched the landscape in which this project finds itself, it is clear that cross-cutting issues that are both perpetuated by global power dynamics, and by those within HEIs themselves, cannot be easily addressed; the issues which the GCDI raised also required a shift in thinking. From the pilot event, it was found that an uncritical and non-inclusive understanding of design thinking would not adequately address cross-cutting intersectional issues. Furthermore, it would not provide students with an analytical framework with which to develop and co-design projects as part of the GCDI. A more inclusive and justice-oriented definition of design thinking was needed.

The work of the VDN has located itself within a range of social and institutional frameworks; the case remained the same for the development and implementation of the first GCDI project. The first

iteration of the GCDI, which took place in March 2022, was focused on the theme of Climate Change. This theme was chosen as a point of connection between all partnering institutions. Climate change and its derivations were also the pedagogical foci of the affiliated staff members. By framing it as the overarching theme for the GCDI, the work, insights, and feedback received during the project could be used to problematise the dichotomous relationship between the curricular and co-curricular spaces.

The use of climate change as the theme of the first iteration of the GCDI project also posed a range of opportunities for students to think through the practicalities and politics of design thinking. Climate change and its manifestations have a disproportionately more harmful effect on marginalised and under-resourced groups across the globe (Satgar, 2018; Yusoff, 2018). Resource scarcity, increasingly severe “natural” disasters and food insecurity are all issues that are going to (and already are) impact the most disadvantaged across the world (Pörtner, Roberts, Adams, Adler, Aldunce, Ali *et al.*, 2022). Therefore, the use of a design justice approach to addressing the manifestations of climate change is essential.

As noted previously, climate change has been considered by many as a wicked problem (Lehtonen *et al.*, 2016; Cross & Congreve, 2021). The GCDI, therefore, positions itself and its participants in relation to this issue both analytically and practically, as highlighted through the design process, and by using the personal connections of the students to climate change. In doing so, this wicked problem is conceptualised, understood, and addressed from a grounded perspective, rather than solely analytically. Furthermore, as Manzini (2015) has illustrated, the function of design thinking has become inextricably linked with the planetary transition spurred on by climate change. Consequently, he argues that: “Design experts [and those formally trained in design thinking] are both internal and external change agents. They are part of the social change itself, but they are also promoters of the social change because they collaborate actively in creating the conditions that facilitate it” (Manzini, 2015: 4).

Manzini’s sketching of the role of “design experts” speaks to the theory of change held by the GCDI. By having students develop the core competency of design thinking, they are positioned as change agents, or more generally willing to be outspoken concerning social justice, with their projects located within the context of climate change, while aiming to promote small-scale change. As Manzini locates the process of design both in the local and “the open” (Manzini, 2015: 25), so too does the GCDI find an iterative relationship between the various scales one can engage through prototyping. However,

underlying the dynamics of design thinking sketched out by Manzini, design thinking needs to be critically recognised along the lines of power dynamics wherein the GCDI is located (Escobar, 2018).

Design thinking was positioned as a core vehicle through which the GCDI enabled students to critically engage the problem of climate change and prototype projects to address localised manifestations of it. As this project is located within the curricular/co-curricular dichotomy, along with the North/South power dynamics that embed this project, design thinking cannot be thought of as existing outside of such systems. The GCDI thus located its design thinking framework around questions of “justice”.

Outside of the weekly synchronous sessions, students were sorted into groups with peers from other institutions to further develop their thinking and projects. Student facilitators were trained in design thinking facilitation. This enabled a range of students to guide each group (approximately five students in each group) through the Double Diamond process of design thinking (Figure 1). Over the duration of the GCDI, these groups interacted frequently as they embarked on the process of individually and collectively mapping their personal and learned concerns and experiences of climate change, and prototyping solutions to climate change education and practical actions individuals can take to combat climate change. For many of the students who took part in the GCDI, it was their first time extensively and continuously interacting in an internationally collaborative forum.

Muddling through collaborative design

The first iteration of the GCDI was delivered across four 2-hour sessions over the month of March 2022. It brought together over 61 students from eight international locations to engage the theme of climate change using a design thinking framework. Additional students were trained by the VDN to participate as facilitators for small internationally diverse group work. Leveraging the in-person and online design thinking experience of the VDN group, these engagements were tailored around the process of design thinking, moving students from becoming familiar with engaging with members from various social-cultural backgrounds to problem definition, and solution generation.

Over the four-week period, weekly collective meetings were held where students were introduced to the process of design thinking, after which they moved to breakout groups to work on a particular element of the design process. To introduce the students to forms of international collaborative projects concerning climate change, the South African regional director of 350.org, Glen Tyler-Davies, was a guest speaker who presented on the organisation’s global effort to stop the East African Crude

Oil Pipeline (EACOP), while focusing on the democratic and international co-ordination of this project. This grounded the future sessions and how the students would eventually develop their own projects, as the #StopEACOP project was offered as an example of community-integrated design practice.

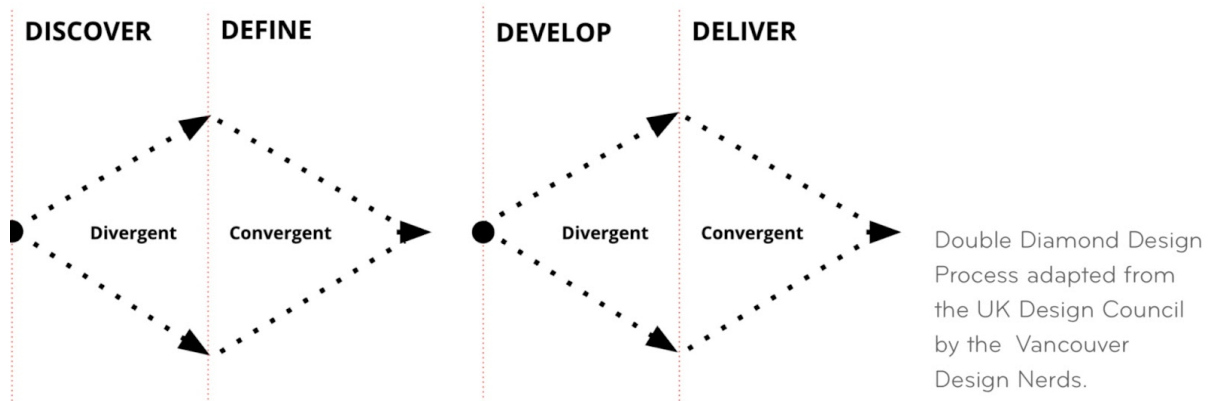


Figure 1: An image depicting the “Double Diamond Design Process” (VDN, 2022)

The first session highlighted the “Discover” phase of the Double Diamond design thinking process (Figure 1). What became apparent in this divergent phase was that students were able to become familiar with both similar manifestations across contexts (such as water shortages in South Africa and the fragility of water infrastructure in Canada) and the specific nature of each context. Using a shared MURAL board, students were encouraged to introduce themselves and engage in asset mapping. This is an activity in which students share their ‘Passion’, i.e., what they strongly believe in, their ‘People’, i.e., who their community is and with whom they may be connected, and finally, their ‘Places’, i.e., where they are from, what places they care about, and what places they would like to protect. During these activities, students were encouraged to think through their positionality both individually and within their group. The students were then asked to use the information gathered and reflect on the guest speaker’s discussion by engaging with questions surrounding structures of power that might hinder climate justice. By recognising both the similarities and particularities between contexts (Graml & Jackson, 2021), students were able to begin to break down the reified differences between institutions located in the Northern and Southern Hemispheres.

Decision-making processes in such collaborative spaces can be embedded within global power dynamics in which students from the Global North are often framed as more competent voices in group discussions. Additionally, many students from African universities encountered design thinking for the very first time through the GCDI. In contrast, some students from either Canada or Sweden were already familiar with this process. Explicitly noting such disparities was a useful starting point to

begin addressing unequal power dynamics throughout the GCDI. Furthermore, peer facilitators were integrated throughout the design process, being trained to ensure equity of engagement in these spaces. Students were asked to think through how they might use their key assets discussed earlier to think through democratic principles that could be used as tools for collaboration. As the students mapped all the above on a shared MURAL page as part of the Discover phase, the design phase required the groups to come together to develop the parameters of a shared project which they would continue prototyping over the next three weeks.

The second section, known as the “Define” phase of the design thinking model, focused on leading the students towards a defined group goal. This goal would allow the students to create a prototype of their desired project. Working from the information mapped out during the Discover phase, students had a clear understanding of a wide range of issues, assets, and shared interests that could be strategically connected through the prototyping phase. At this point, one could track the origins of the projects that are presented in the final week. By encouraging the groups to think through how their project could be configured to various scales, the groups were asked how their project could be implemented in its most basic form, with iterations of varying degrees of increased scale and resources following on from this point.

Through the “Develop” stage of design thinking, some students initially proposed overly ambitious projects; we encourage this form of ‘blue sky’ thinking, however, we recognise the importance of addressing the manifestations of climate change in a practical and realistic manner. Students are therefore encouraged to find a balance within a framework that asks: ‘What are you able to achieve in the next two weeks?’ While, naturally, the diverse interests of the students from different contexts complicate the process of coming to one clear project as a group, the dynamics and the engagements which take place during this phase are essential learning opportunities. Ng, Van Dyne and Ang (2009) illustrate how engagement in such spaces, rather than exclusively didactic instruction relating to the programme outcomes, can lead to the more holistic development of students (Ng *et al.*, 2009: 511).

While the Discover and Define phases have clear established outcomes regarding project development and prototyping, one overarching focus during the overall project was for students to develop cross-cultural competence. This can be defined as “Being able to communicate and work effectively across cultures” (Griffith, Wolfeld, Armon, Rio’s & Liu, 2016:1). The Develop phase teaches students to think towards a common goal. Chiu, Lonner, Masumoto and Ward (2013), while tracing the contestations around the term ‘cross-cultural competence’, illustrate the role of “focuses on

sensitivity to cross-cultural differences and... the reflective awareness of cultural influences on one's thoughts and behaviours" in such spaces (Chiu *et al.*, 2013: 846). Although the feedback received after the March 2022 iteration of the GCDI confirms that cross-cultural competency was an outcome to varying degrees, the projects presented in the showcase raise questions about the nature of competency acquisition. This will be raised later when considering the outcomes of the showcase and the larger GCDI project.

Following the instruction of the first two sessions, the groups were required to present their proposed projects at a feedback session or "Office Hours", hosted by the GCDI co-ordinators. The groups received continuous feedback from their group facilitators, and sporadically from the organisers throughout the synchronous sessions. The Office Hours session allowed the groups to receive detailed, individualised, and structured feedback on their projects and eventual presentations. An ancillary benefit from this session is that it acted as a trial run for the final showcase session which would take place the following week. The oscillation between peer feedback and formalised feedback ensured that the GCDI deliberately deviated from the hierarchical top-down mode of feedback ingrained in curricular instruction. This led to a more horizontal and student-led form of engagement.

In the final week of the GCDI, the groups finalised their projects in order to briefly present these projects in the plenary, with guests such as lecturers from University West and the University of Toronto. These guests were then encouraged to comment on the projects and provide feedback to each of the groups. What emerged was a collection of projects that employed a democracy-focused strategy. These projects covered a range of issues, all of which aimed to address the climate crisis through many creative avenues.

For example, one project proposed the creation of a mobile library focused on raising awareness of the climate crisis amongst school children in Canada, South Africa, and Sweden in order to give children a "head start on climate action". Another group proposed an online thrift store which would not only sell clothes but provide information to the buyer regarding the carbon footprint of the item they wished to purchase; a prototype website was already up and running at the showcase session. Other projects ranged from creating climate action-focused community events to a platform providing university students with legal advice to contest contaminated water resources. A reusable "keep cup" relay initiative between university campuses also illustrated how some projects can be easily implemented in and across each location, and a short advertisement TikTok video was produced by this group. All the projects presented showed, through the process of design thinking, that students

were able to come together to conceptualise and prototype scalable and practical initiatives that provide a sense of agency in addressing manifestations of the wicked problem that is climate change.

Through our critical engagement with, and framing of, design thinking, we found that the projects developed were attuned to the contextual specificities from each of the participant's lived realities. Furthermore, the projects developed were closely aligned through the lens of social justice. Having students from diverse institutions which have differing economic and technical resources, the students further showed an awareness and a critical articulation of small-scale, ground-up, and scalable projects which did not depend on extensive resources to be implemented.

Possibilities for generative feedback loops between the curricular and co-curricular

The GCDI took place over four weeks, at a time when university campuses globally were slowly transitioning into in-person teaching in the wake of the COVID-19 pandemic. Being the first iteration of the GCDI, emphasis was placed on feedback and reflection both during and after the course. Both qualitative and quantitative feedback was received from the core design team, along with the facilitators and the students. What emerged was an amalgamation of positive reviews mixed with some points of improvement. Participants noted that extending the synchronous group sessions to have more time with the activities would be useful. This illustrated that not only were the students engaging with the activities, but desired to work more carefully through the elements of design thinking. Time constraints were an anticipated issue and were therefore mitigated by encouraging the students to interact with the activities and their respective groups outside of the sessions provided. Most groups did ultimately do this, however, there seemed to be a greater desire to engage with the entire cohort more extensively as well. This speaks not only to the ability of the design thinking model to fully engage students within the subjects being discussed but also to the GCDI's ability to bring people together and create a shared experience.

Within curricular pedagogical spaces, the forms of instruction and assessment are generally individualised. Costanza-Chock (2020), in engaging the hegemonic form of curricular pedagogy, develops a critique of what Freire called the "banking model" of education (Freire, 1970: 72). She goes on to argue, again following the work of Freire, that "the role of the educator [and the broader pedagogical milieu] is to pose problems, create spaces for the collective development of critical consciousness, help to develop plans for action to make the world a better place, and develop a sense of agency among learners" (Costanza-Chock, 2020: 177). The GCDI has focused on creating spaces in

which students can take what they have learnt in the curricular space and engage more practically around issues of climate change. While the curricular space opens up opportunities for critical engagement around issues, the connection between these spaces can ultimately be co-productive in student development. We have recognised in this paper that students have varying levels of commitment to both the curricular and co-curricular spaces for a range of reasons; by finding connection points between these spheres, as we have done through the GCDI, we have shown how mutually beneficial iterative feedback loops can be developed.

Additionally, we noticed that heading into the GCDI without intentionality of developing an inclusive and experientially-sensitive space would mean that the important conversations surrounding the power dynamics between geographical and financially distinct institutions may not have taken place. The design thinking model utilised on its own creates a space for iterative and creative design that allows anyone who uses it the ability to think quickly, creatively, and imaginatively. However, from what we initially encountered, design thinking is limited, in that one needs to design activities that specifically target or employ an engagement with the discussions around certain systems of power. By addressing group dynamics in the training of facilitators, along with having student facilitators present in all engagements, attempts were made to develop equitable spaces of interaction and engagement. This limitation speaks to what Czerniewicz *et al.* (2014) argue regarding the risk of creating global pedagogical, co-learning spaces, in that these spaces might inadvertently perpetuate the very “educational divisions, power dynamics and hegemonic knowledge systems” we sought to probe (Czerniewicz *et al.*, 2014).

Conclusion

The GCDI set out to engage with and contest the borders between the curricular and co-curricular spaces, through the leveraging of design thinking. In this, we were able to create spaces in which students from a range of different HEIs from across the world would be able to engage, learn from each other, and co-develop a project. By using the theme of climate change, the GCDI opened up iterative feedback loops between the curricular and co-curricular spaces, while also talking to issues that could connect students from different locations. We found that over the four weekly contact sessions, as students were guided through the process of design thinking, global classrooms can push back against a range of power dynamics which embed such projects. While design thinking remained an essential tool in this, it became apparent that only through the strategic and intentional use of

design thinking could transformative learning and engagement be fostered. The feedback from this first iteration of the GDCL has been integrated into the structuring of the future of the project.

References

- Bégin-Caouette, O. 2013. Globally networked learning environments as eduscapes for mutual understanding. *Critical Intersections in Education: An OISE/UT Students' Journal*. 1(2), 54-70. Retrieved February 11, 2019.
- Behari-Leak, K. 2020. Toward a borderless, decolonized, socially just, and inclusive scholarship of teaching and learning. *Teaching and Learning Inquiry*. 8 (1): 4-23. <https://doi.org/10.20343/teachlearningu.8.1.2>
- Boughey, C. & McKenna, S. 2021. Interrogating the power dynamics in international projects. *Critical Studies in Teaching and Learning (CriSTaL)*. 9(2): 64-82. DOI: 10.14426/cristal.v9i2.448
- Brunner, C. 2021. Conceptualizing epistemic violence: an interdisciplinary assemblage for IR. *International Politics Reviews*. 9: 193-212.
- Chiu, C., Lonner, W. J., Masumoto, D. & Ward, C. 2013. Cross-cultural competence: Theory, research and application. *Journal of Cross-Cultural Psychology*. 44(6): 843-848.
- Collyer, F. M. 2018. Global patterns in the publishing of academic knowledge: Global North, Global South. *Current Sociology*. 66(1): 56-73. DOI: 10.1177/0011392116680020
- Constanza-Chock, S. 2020. *Design Justice: Community-Led Practices to Build the Worlds We Need*. Cambridge, Mass.: MIT Press.
- Cross, I.D. & Congreve, A., 2021. Teaching (super) wicked problems: authentic learning about climate change. *Journal of Geography in Higher Education*, 45(4):491-516. <https://doi.org/10.1080/03098265.2020.1849066>
- Czerniewics, L., Deacon, A., Small, J. & Walji, S. 2014. Developing world MOOCs: A curriculum view of the MOOC landscape. *Journal of Global Literacies, Technologies, and Emerging Pedagogies*. 2(3): 122-139.
- Dada, S., van Daalen, K.R., Barrios-Ruiz, A., Wu, K.T., Desjardins, A, Bryce-Alberti, M. *et al.* 2022. Challenging the “old boys club” in academia: Gender and geographic representation in editorial boards of journals publishing in environmental sciences and public health. *PLOS Global Public Health*. 2(6). <https://doi.org/10.1371/journal.pgph.0000541>
- Demeter, M. 2020. *Academic Knowledge Production and the Global South: Questioning Inequality and Under-representation*. Palgrave Macmillan.

Dorst, K. 2010. The nature of design thinking. In Design Thinking Research symposium. DAB Documents. https://www.researchgate.net/publication/264877125_the_nature_of_Design_thinking/citation/download

Escobar, A. 2018. *Designs for the Pluriverse: Radical Interdependence, Autonomy and the Marking of Worlds*. Durham: Duke University Press.

Foucault, M. 1977. *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*. New York: Pantheon Books.

Gachago, D., Bali, M. & Pallitt, N. 2023. Equity-Oriented Learning Design: An Entangled Future. *Postdigital Science & Education*, 6: 173-193. <https://doi.org/10.1007/s42438-023-00420-w>

Graml, G. & Jackson, R. O. 2021. It Starts with a journey: Global Learning as holistic, interdisciplinary curricular and co-curricular framework at a liberal arts college. *Journal of Higher Education Theory and Practice*. 21(5): 186-195.

Griffith, R. L., Wolfeld, L., Armon, B. K., Rio's, J. & Liu, O L. 2016. Assessing intercultural competence in higher education: Existing research and future directions. *ETS Research Report RR*. 16-25. [Online]. Available: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/ets2.12112>

Hill, C., Molitor, M. & Ortiz, C. 2016. Racism and inequity are products of design. They can be redesigned. *Medium*. [Online]. Available: <https://medium.com/@equityXdesign/racism-and-inequity-are-products-of-design-they-can-be-redesigned-12188363cc6a>

Lehtonen, A., Salonen, A.O. & Cantell, H. 2019. Climate change education: A new approach for a world of wicked problems. In Cook, J. W. *Sustainability, Human Well-Being, and the Future of Education*. https://doi.org/10.1007/978-3-319-78580-6_11

Lock, J. V. 2015. Designing learning to engage students in the global classroom. *Technology, Pedagogy and Education* 24(2), 137-153. Retrieved April 15, 2019.

Longo, N. V. & McMillan, J. 2015. Educating for global leadership: A North-South collaboration. *New Directions for Student Leadership*. (148): 73-86.

Manso, M. & Garzon, M. 2011. Designing effective global collaborative projects. *Learning and Leading with Technology*. 39: 32-33.

Manzini, E. 2015. *Design, When Everybody Designs: An Introduction to Design for Social Change*. Cambridge, Mass.: MIT Press.

Mbembe, A. 2021. *Out of the Dark Night: Essays on Decolonisation*. New York: Columbia University Press.

Miller, J. P. 1998. Making Connections Through Holistic Learning. *The Spirit of Education*, 56(4): 46-48.

Ng, K., Van Dyne, L. & Ang, S. 2009. From experience to experiential learning: Cultural intelligence as a learning capability for global leader development. *Academy of Management Learning & Education*. 8(4): 511-526.

Pande, A., Chaturvedi, R. & Daya, S. 2023. *Epistemic Justice and the Postcolonial University*. Johannesburg: Wits University Press.

Patterson, L. M., Botero Carrillo, P. & Solano Salinas, R. 2012. Lessons from a global learning virtual classroom. *Journal of Studies in International Education*. 16(2): 182-197.

Pörtner, H.O., Roberts, D.C., Adams, H., Adler, C., Aldunce, P., Ali, E., Begum, R.A., Betts, R., Kerr, R.B., Biesbroek, R. & Birkmann, J. 2022. Climate change 2022: Impacts, adaptation and vulnerability. *IPCC Sixth Assessment Report*.

Satgar, V. 2018. (Ed.). *The Climate Crisis: South African and Global Democratic Eco-Socialist Alternatives*. Johannesburg: WITS University Press.

Starke-Meyerring, D. & Wilson, M. 2008. Learning environments for a globally networked world: Emerging visions. In Starke-Meyerring, D. & Wilson, M. (Eds.). *Designing Globally Networked Learning Environments: Visionary Partnerships, Policies, and Pedagogies*. Rotterdam: Sense. 1-17.

Stirling, A. E. & Kerr, G. A. Creating meaningful co-curricular experiences in higher education. *Journal of Education and Social Policy*. 2(6): 1-7.

Sun, J. & Yang, K. 2016. The wicked problem of climate change: A new approach based on social mess and fragmentation. *Sustainability*. 8(1213): 1-14.

Taylor, J. 2004. Toward a strategy for internationalisation: Lessons and practice from four universities. *Journal of Studies in International Education*. 8(2): 149-171. DOI: 10.1177/1028315303260827

Wankel, L.A. & Wankel, C. 2016. An overview of integrating curricular and co-curricular endeavors to enhance student outcomes. In Wankel, L.A. & Wankel, C. (Eds.) *Integrating Curricular and Co-Curricular Endeavours to Enhance Student Outcomes*. Bingley, Bradford, UK: Emerald Group Publishing Limited. 3-12. <https://doi.org/10.1108/978-1-78635-064-020161001>

Yusoff, K. 2018. *A Billion Black Anthropocenes or None*. Minnesota: University of Minnesota Press.



This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>