

# Designing Collaborative Development: Lessons from interdisciplinary teaching and learning

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## Abstract

The faculties of international affairs and design of a university in New York have been working together since 2007 on the international program DEED: Development through Empowerment, Entrepreneurship, and Design. The course Designing Collaborative Development prepares students to complete summer fieldwork in collaboration with communities in need. This paper focuses on this course and an international program in Guatemala as a central case study and argues that for a valuable and responsible immersive experience to occur there needs to be a lot of beforehand preparation with each student. Such preparation focuses on particular practitioner skills, but most importantly, students need to prepare for unexpected challenges and to be resourceful and reflective of their practice.

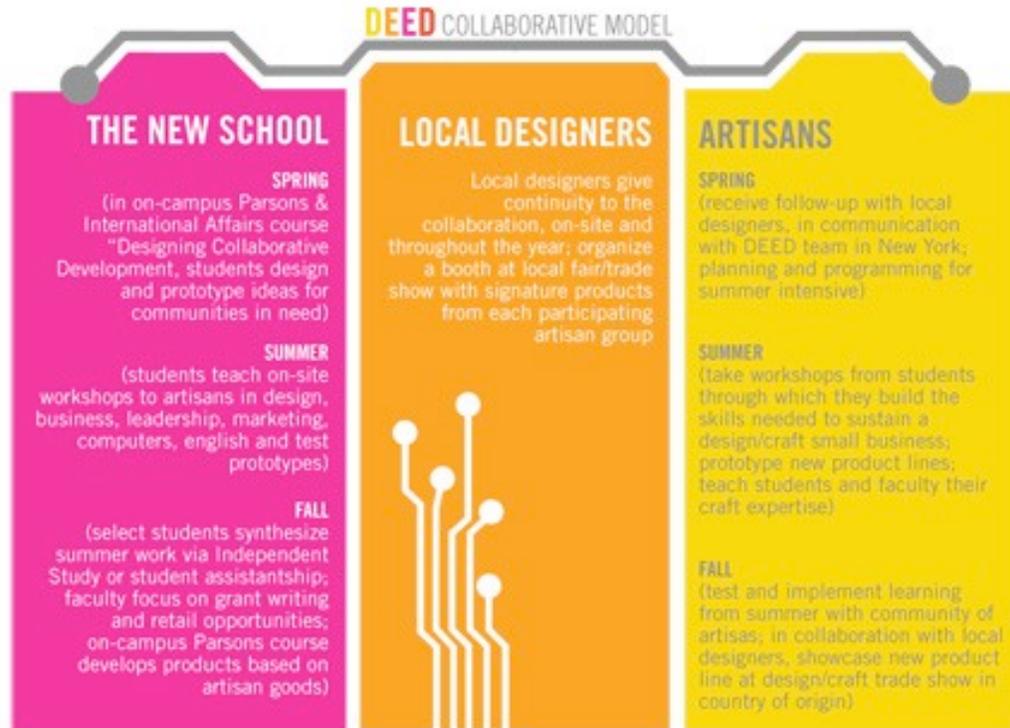
The paper includes the history of the class and the program; the course's pedagogical methodology, and the successes and challenges of a multi-disciplinary classroom (for both students & faculty), where social sciences and design frameworks are explored side by side, resulting in innovative multidisciplinary approaches to project design, needs assessment, program development, project implementation, and monitoring and evaluation. Keywords: design, development, collaboration, sustainability, pedagogy

## Project and Course History

*DEED: Development through Empowerment, Entrepreneurship, and Design* is a cross-disciplinary initiative comprised of faculty and students from across many disciplines in a university in the United States. The program's three core areas are design, international affairs, and management, and its principal activity is a service-learning program that takes place each summer in Guatemala (with the goal of expanding globally). Teams of students and faculty work with groups of indigenous artisans and local professional designers to help the artisans generate income through the sale of their craft and promoting sustainable tourism while at the same time preserving their traditions, culture, and heritage. Via collaborations with communities in need, *DEED* seeks to promote small-scale and sustainable development through empowerment, entrepreneurship, and design.

Initiated in 2007 with a donation from philanthropist Sheila C. Johnson and in association with the international humanitarian organization CARE, fifty five students and about ten faculty have participated in the summer fieldwork in Guatemala and in the spring course that precedes it, entitled *Designing Collaborative Development*. The sequence of a course followed by summer fieldwork, along with an established network between the university, groups of indigenous artisans, and in-country local designers, is a model (see Figure 1) that *DEED* intends to replicate globally (and adapt

where needed), and even support other universities and non-profit organizations to follow and implement.



**Figure 1.** The DEED model

*Designing Collaborative Development (DCD)* is a course that began in spring 2008 when the university received the initial donation that launched *DEED*. At the time, the course was proposed as a way to prepare students for the intensive summer fieldwork in Guatemala and therefore was a semester-long study of the artisan group with whom the team would be collaborating with in the summer (in 2008 it was the Mayan weavers association *Ajkem'a Loy'a* in the town of San Lucas Tolimán.) The co-authors of this paper have, since 2008, worked on the course (as curriculum developers and co-teachers) to expand it from a summer fieldwork pre requisite into a robust seminar/studio elective open to students from across our programs in design, management, and international affairs.

*DCD* offers students the opportunity to gain an understanding of key concepts and skills essential to become global consultants for small business enterprises focusing on social innovation, empowerment, and community development through design. Students are prepared to work with marginalized populations (women, indigenous groups, rural communities) by developing sustainable business models through needs-based capacity building, product and project design and development, and by establishing networks of collaboration.

During the first half of the semester students examine and practice skills in the areas of sustainable development, social entrepreneurship, microcredit and microfinance, business, marketing, media communication and documentation, design of products as well as community development models, and workshop facilitation in informal settings. Case studies of marginalized groups

exploring the possibilities of using market-based approaches involving innovative design and media as tools for development are also studied in the early part of the semester.

In the second half of the course students prototype a model in which they put into practice everything they have learned – testing and enacting the thoughts, assumptions, and ideas that have been generated in the first half of the semester. Students who take this class have the option to enroll in summer fieldwork, traveling to various countries for the month of June/July to work directly with communities in developing countries.

This unique, interdisciplinary course brings together students from programs in international affairs, management, and design under the premise that there is not a single expert but different knowledges that complement each other and can be exchanged through collaborations.

### **Pedagogical Methodology**

The pedagogical methodology of the course is inspired by two key philosophers in informal and experiential education, Paulo Freire and John Dewey. In *Pedagogy of the Oppressed* Paulo Freire proposes a philosophy of education based on dialogical relationships between learners and educators, which lead to a process of empowerment and awareness-raising. All participants are engaged and responsible for constructing knowledge together. “Through dialogue, the teacher-of-the-students and the students- of-the-teacher cease to exist and a new term emerges: teacher-student with students-teachers. The teacher is no longer merely the-one-who-teaches, but one who is him/herself taught in dialogue with the students, who in turn while being taught also teach. They become jointly responsible for a process in which all grow.” (Freire 2005, p, 80).

In Freire's view, dialogue is not limited to exchanging information but it is a medium to create awareness about the world and other people's perspective. Student-teachers “simultaneously reflecting on themselves and on the world, increase the scope of their perception, they begin to direct their observations towards previously inconspicuous phenomena” (Freire 2005, p. 80). This conscious reflection through dialogue and critical thinking leads to what Freire has termed as the process of conscientization, the idea of developing an awareness about the world and one's position in the world in order to become empowered to transform reality.

Reflection upon situationality is reflection about the very condition of existence: critical thinking by means of which people discover each other to be "in a situation." Only as this situation ceases to present itself as a dense, enveloping reality or a tormenting blind alley, and they can come to perceive it as an objective-problematic situation—only then can commitment exist. Humankind emerge from their submersion and acquire the ability to intervene in reality as it is unveiled. Conscientization is the deepening of the attitude of awareness characteristic of all emergence. (Freire 2005, p. 107)

By collectively exploring elements of their daily realities under a critical lense, student-teachers and community collaborators build social capital and enhance their commitment to making a difference in the world.

The second key element of Freire's pedagogy that has contributed to the methodology of *DCD* is his idea of “Generative Themes”, people's experiences, expertise, perspectives, and understandings that will become the starting point for developing a curriculum that builds on existing knowledges. “The starting point for organizing the

program content of education or political action must be the present, existential, concrete situation, reflecting the aspirations of the people.” Once the generative themes have been identified, the educator’s role is to create pedagogical spaces, which challenge students and community collaborators to spiral out from their own experience into the issues/realities that affect the world at large. “Utilizing certain basic contradictions, we must pose this existential, concrete, present situation to the people as a problem, which challenges them and requires a response—not just at the intellectual level, but at the level of action.” By designing structured learning experiences that encourage participants to be engaged and challenged by real life situations, student- teachers and community collaborators are empowered to create the world they aspire to live in. (Freire 2005, p.96)

Complementary to Freire's dialectic and dialogical philosophy of education, John Dewey's *Democracy and Education* emphasizes the importance of cultivating democratic communities through education, communication and shared goals.

Men live in a community in virtue of the things which they have in common; and communication is the way in which they come to possess things in common. What they must have in common in order to form a community or society are aims, beliefs, aspirations, knowledge--a common understanding--like-mindedness as the sociologists say... The communication which ensures participation in a common understanding is one which secures similar emotional and intellectual dispositions--like ways of responding to expectations and requirements. (Dewey 1916, p.7)

Dewey viewed communication and common understanding as the foundation for a democratic society and “education in its broadest sense, [as] the means of [the] social continuity of life” (Dewey 1916, p.5). Therefore, if education is the means to achieving and/or maintaining society’s values and aspirations, it is through education that a new society and a new type of citizen can be created. Based on this premise, Dewey focused on developing educational opportunities, which fostered students' civic engagement. He believed that students needed to be engaged and challenged by real-life situations.

...since democracy stands in principle for free interchange, for social continuity, it must develop a theory of knowledge which sees in knowledge the method by which one experience is made available in giving direction and meaning to another. The recent advances in physiology, biology, and the logic of the experimental sciences supply the specific intellectual instrumentalities demanded to work out and formulate such a theory. Their educational equivalent is the connection of the acquisition of knowledge in the schools with activities, or occupations, carried on in a medium of associated life. (Dewey 1916, ch.25)

It was Dewey's belief that exposing students to real life situations facilitates the storage and carriage of practical experiences into the future. When learning by doing, the past connects with the present in order to create an experience that is meaningful and memorable. Students use the past as their framework of reference for processing the new experience, maintaining continuity while constructing a palimpsest of practical knowledge.

Finally, and discussed in detail in the following section, media and social innovation play a key role in facilitating and enriching the collaborations with indigenous communities, Wendy Ewald's literacy through photography projects (Ewald, 2002) and IDEO's theories of Human-Centered Design (IDEO, 2009) inspired the incorporation of methodologies that aim to bridge the digital divide and use media as a tool for representation, advocacy, and fundraising.

### **Designing Collaborative Development**

Designing a philosophy of education requires the educator to take various elements into account: the role of the educator and the learner, the interaction in the learning space in relation to the dissemination of knowledge, and the ways in which knowledge will be revealed, discovered, constructed, and owned.

In *DCD*, faculty play the role of facilitators and guides in the construction of knowledge. Instead of handing down learners a formula or model to follow, students and collaborators in Guatemala are invited to design the journey along with the “educators.” *DCD* brings together the perspectives of design, international affairs, and management programs, under the premise that there is not a single expert but different knowledges that complement each other and can be exchanged through collaborations. This mix of students and the nature of the course and international program lend itself for an integrative learning environment. “Integrative learning is an umbrella term for structures, strategies, and activities that bridge numerous divides, such as ... general education and the major, introductory and advanced levels, experiences inside and outside the classroom, theory and practice, and disciplines and fields” (Klein, 2005, p. 1). To create such an environment, it is critical to have students from a variety of levels (undergraduate and graduate) as well as with a diversity of backgrounds, interests, and skills. The course and international program are then structured in such a way that students learn from one another, while at the same time leveraging the skills and strengths they bring with them.

Through multi-disciplinary learning the course promotes problem solving and problem setting through the lens of a wide variety of points of view and differing levels of experience and education. A diverse student body engages with each other in developing a common language of understanding. Social sciences, management, and design frameworks are explored side by side, resulting in innovative multidisciplinary approaches to theory and practice, project and product design, needs assessment and human-centered design, program and curriculum development, project implementation, and monitoring and evaluation of processes, products, and services. Of particular interest is how students, through interdisciplinary on-campus courses followed by intensive international fieldwork experiences learn skills that would never be possible in a traditional classroom setting, and how interdisciplinary groups of students can holistically approach problem-solving. (Lawson, 2010)

Learning in a multidisciplinary classroom of graduate and undergraduate students, poses the challenge of creating an equal field of questions, skills, and knowledge to which all participants (students, faculty, and community collaborators) can contribute and from which all can learn. (Lawson, 2010) It is through essential questions, practical skills, and generative themes that the course and the international program bridge the gap across disciplines, cultures, and levels of education, starting from what students and community collaborators already know, and spiraling out through dialogue to build common understanding and knowledge.

With such a diverse classroom (in spring 2010 the course had nine undergraduate BFA design students, two undergraduate BBA design and management students, and six graduate MA international affairs students) it is important to share definitions for the commonly used terms in the course. Therefore *DCD* starts with a session on definitions for design, sustainability, development, and collaboration – the four key areas of emphasis throughout the semester. Students prepare for this session

beforehand with the article “Design, Poverty, and Sustainable Development” (Thomas, 2006) as well as excerpts from the book *Designers Meet Artisans* (Designers Meet Artisans, 2005). This brainstorming session in class is the first opportunity students have to experience how each person in the classroom has specific knowledge that they bring to a collaborative and multi-disciplinary setting. From this first interaction with students, students and faculty collaborate on formulating essential definitions for the course’s key concepts. By establishing this dynamic the lines between teacher and learner are blurred and all participants are encouraged to generate knowledge in collaboration with each other. The learning space becomes a platform for exploration, debate, exchange, role-play, and experimentation.

So as to balance the challenge of a classroom, and have consistent engagement across undergraduate students most familiar with studio courses (those in BFA majors) and graduate students most used to seminar-based learning (most courses in their MA degree revolve around readings, discussions, and the writing of papers), it is important to move between theory and practice. The course starts with theory and then moves into practice via the introduction, presentation, and critique of three case studies: Fábrica Social, an organization that works with indigenous artisan women in Mexico (<http://fabricasocial.org>); Social Entrepreneur Corps’ MicroConsignment Model (VanKirk, 2010 and Smith, 2010); and the project that the co-authors co-initiated, *DEED: Development through Empowerment, Entrepreneurship, and Design* (formerly named The New School Collaborates) (Lawson, 2010). This session, early on in the semester, provides a context via which students are then immersed into the seven specific aspects of small-scale community collaborations: teaching in informal settings, digital media, marketing, social innovation and entrepreneurship, fundraising, needs assessment, and finally, monitoring and evaluation.

Teaching in informal settings is introduced as the vehicle with which capacity-building can occur in communities in need, as well as a platform to create equal knowledge exchanges between all parties involved in the collaboration. This session in the course is grounded in Beth Gragg’s manual *Tools from the Field* (Gragg, 2007) as well as an excerpt from a book on informal education (Mahoney, 2001). Finally, and again to address the diversity of learning interests in the classroom, the TED video “Sugata Mitra shows how kids teach themselves” is assigned as required “reading”. The various modes of teaching and learning introduced in the readings are then used as reference points for the activities that take place throughout the semester in the course (using the course itself as a way to demonstrate the variety of modes including workshops, lecturettes, and discussions.)

For the redesign of the course in 2010, two sessions were allotted for the section on digital media. This is in part due to the quantity of material there is now about digital media and development, as well as the fact that young adults have a natural interest in understanding how technology can be used in collaboration with communities. These two sessions are introduced with a lecturette to describe digital media in three overarching forms (from passive to active): documentation, representation, and activism. In preparation, students read excerpts from Wendy Ewald’s seminal book on kids with cameras projects (Ewald, 2002), watch the academy-award winning documentary film *Born into Brothels*, and read an extensive blog article which criticizes the project portrayed in the film (buddahsbreakfast, 2009.) In lieu of a traditional discussion, students engage in role playing so as to debate both sides of a kids with cameras project. The roles of an NGO, a donor, a photographer/teacher, kids in need, and the kids’ parents were assigned to one or two students. Then, the

faculty ask the students to initiate the role playing with the donors giving money to the NGO. The simulation continues, is repeated several times, with the faculty interjecting with potential real-word variables, such as the parents feeling like the project is exploiting their children, or the donor running out of money. In this highly interactive session students are able to directly reflect on the theory presented in the reading, by practicing the roles involved in such projects. Furthermore, the success of this pedagogical approach is clear in an anonymous end-of-semester evaluation, to the question "Which class/week was your favorite?" one student responded, "Group scenarios w/ role playing of all participating elements of a Participatory Photography project."

True to the idea that in multi-disciplinary projects there is no single expert, this course relies on the advisement, expertise and guest visits from other faculty and colleagues from the university. One such guest is the director of the Fashion Marketing program who has also led the market research endeavors for *DEED*. The framing for marketing within this course is twofold. On the one hand, in some community collaborations there may be a product (or product line) that will need to be marketed, as is the case with collaborations with artisans in which they want to generate income via the sale of their craft goods. The other approach for marketing is the idea of marketing the project (which certainly dovetails with fundraising, discussed later in this paper.) The challenge with a topic such as this one is that it can be a highly specialized and technical field, and yet it is being discussed for just under two hours. The guest lecturer has two handouts which she previously circulates to the students, and which summarize myriad resources for the students on this topic. Then, the activity for synthesis is "The Entrepreneur's Marketing Plan" worksheet which the students use as a template to create plans for their own projects in the paper assigned later in the semester.

The final content driven section of the course is on social innovation and social entrepreneurship. Another challenging topic since there are semester- long courses that focus on just one of the two. Four assigned readings provide the theoretical, and methodological framework for the lecturette delivered in class. These readings range from a journal article (Phills, Deiglmeier, and Miller, 2008) to IDEO's "Human-Centered Design Toolkit" (IDEO 2009). The translation into practice becomes that students are asked to design a socially innovative product for an indigenous Mayan weaver living in a town in Guatemala (the story is based on a participant of the *DEED* project in Guatemala). From the description of that person's living conditions, family situation and activities, students are then asked to design a socially innovative product for the person described. They are also encouraged to consider their design both socially innovative as well as a way to promote social entrepreneurship.

The final content-intensive, and probably the most practical session in the course is on fundraising. Led by a staff person from the university's office of institutional giving, students learn the steps and strategies involved in a successful fundraising strategy for a project. A week before, students are asked to send ideas for projects they could imagine designing, and the guest lecturer uses some of these as a way to walk students through the various steps of raising funds. This type of interaction is yet one other example of how both theory and practice are emphasized throughout the course.

How to assess the needs of a community and how to monitor and evaluate a project are the final two sessions before the prototyping phase begins. Quite method-intensive, these two sessions are possibly the hardest to cover in individual sessions,

since much of the process in actuality needs to take place in conversation with a community and throughout a time period much longer than just a couple of hours. Because of this practical level, the readings for each session come from the field. For needs assessment, students read a field manual published by the international humanitarian organization Catholic Relief Services (Freudenberger) and for monitoring and evaluation, a guide published by the International Rescue Committee.

There are three principal course deliverables: a paper, a prototype, and a workshop plan. The paper asks students to individually design a project plan based on either an imaginary or an existing project that they want to improve. In either case, the project should promote social and/or economic development. The outline of the paper is given and includes 1. Contextual narrative, 2. Goals and objectives, 3. Framework for how design, sustainability, collaboration and development are addressed in the project, 4. Design of needs assessment, 5. Monitoring and evaluation plan, 6. Curriculum: Content and methods of delivery, 7. Role of media in the project, 8. Marketing plan, and 9. Fundraising strategy. To ensure that students are synthesizing readings and discussion from class, it is required that all sections, via footnotes, refer to specific readings and lectures from the class. From 2009 and 2010 the paper has had similar reception – students, at first are anxious about the length and content, but then the majority of them excel at the opportunity to come up with a project from scratch. There have been at least 4 papers for which students have been advised to continue the ideas since they are strong proposals for projects that they could actually make happen (as a thesis or capstone paper for their degree) – a demonstration of the success of the paper assignment as a synthesis and evaluation for learning.

In week 11 (out of a total of 15) students engage in prototyping a model in which they put into practice everything they have learned - testing and enacting the thoughts, assumptions, and ideas that have been generated in the first half of the semester. The prototype phase allows students to develop a wide range of ideas and considerations to pull from when working with the artisan or community groups in the international program. It has also proven useful to introduce the concept of prototyping to non-designers as a way to move away from the theory and be able to test ideas before one is in collaboration with a community. The notion of prototyping is introduced as an iterative methodology and one that continues throughout the collaboration with the community (in the case of *DEED*, it continues during the summer fieldwork in Guatemala.)

An important goal of the course is to empower students to activate their knowledges in the field as teachers, as well as activating the knowledges of the communities they collaborate with by functioning as facilitators. The course ends with students become the educators, and developing a curriculum for the international program. They prepare workshops and activities to be taught to the indigenous communities in the summer program (if they choose to travel). Students facilitate the workshops in the classroom in New York prior to teaching them to the artisan communities. This process allows students to test out their ideas, challenge their assumptions, and reflect on their practice in order to improve it. Informal education, in this instance, is also used as a vehicle to translate proposed prototypes to collaborations (as a way to avoid imposing ideas and instead making sure they surface from the needs and interests of the community.)

### **DCD as preparation for fieldwork**

For a valuable and responsible immersive experience and cross-cultural collaboration

to occur there needs to be a lot of beforehand preparation with each student. As previously mentioned, such preparation focuses on particular practitioner skills, but most importantly, students need to prepare for unexpected challenges, to be resourceful and reflective of their practice, and responsive to the user and the context. The classroom becomes a simulation space for the real world, students engage in a journey where the environment is in constant transformation. The course includes practical scenarios in which faculty and students role play what could be expected on the ground. The uncertainty serves as a catalyst to train students to find opportunities in challenging situations, to think on their feet and leverage their resources, to expand their collection of practical knowledge, and in the process, develop their confidence and empower them to become agents of change.

*DCD* prepares students to be reflective practitioners. Donald Schon's notions of "reflection-in-action" and "reflection-on-action" discussed in *The Reflective Practitioner* were influential when designing the pedagogical methodology of the course and the international program. In *DCD* students are trained to 'think on their feet', which is an invaluable skill when working in developing countries, particularly with communities in need because their situation is ever-changing. As mentioned previously, the simulations and prototype phase of the course prepare students to improvise in unpredictable situations by constantly building new understandings. As Schön describes it,

The practitioner allows himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behaviour. He carries out an experiment which serves to generate both a new understanding of the phenomenon and a change in the situation. (Schön 1983, p. 68)

In addition to reflection-in-action, intrinsic to the design of the international program are daily debriefing sessions (reflection-on-action) where students get to reflect on their practice, lessons learned are shared, and a body of practical knowledge is created, building a collection of theories and responses that can be drawn upon when facing unpredictable situations.

When a practitioner makes sense of a situation he perceives to be unique, he sees it as something already present in his repertoire. To see this site as that one is not to subsume the first under a familiar category or rule. It is, rather, to see the unfamiliar, unique situation as both similar to and different from the familiar one, without at first being able to say similar or different with respect to what. The familiar situation functions as a precedent, or a metaphor, or... an exemplar for the unfamiliar one. (Schön 1983, p.138)

Through reflection-in-action and reflection-on-action, students, community collaborators, and educators are constantly connecting to their experiences and constructing new frames of reference to inform their actions in a situation that is constantly changing.

### **Conclusions**

The best way *DCD* can be evaluated as a course that prepares students to work with communities in need in a cross-cultural setting is to evaluate the program during the summer, as well as to hear from the participants themselves. In summer 2010, during an informal conversation between a faculty member and the student team in Guatemala, there was a suggestion to maybe move the fieldwork to spring break. To that proposal one student reacted, "But if we have the trip in the middle

of the semester, we will not have been exposed to all the activities that helped us prepare to be here.” Also, in an anonymous summer 2009 program evaluation one student pointed out, “I felt that the Spring semester provided me with a very interesting introduction to the concepts of design and collaboration in development” and most importantly, “I think that I learned more than I ever could in a class and I have formulated opinions and ideas that I believe I could only have made through this experience.”

The statements above highlight the principal opportunity students have in these kinds of cross-cultural programs, which start in the classroom and culminate on the field. University faculty can work all they want on courses like *Designing Collaborative Development* – with interesting pedagogy, multi-disciplinary classrooms, and even democratic student-teacher learning spaces, but there is much to gain about cross-cultural collaborations from the actual off-campus experience, where students have the invaluable opportunity to apply their skills and learn by doing.

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