

Issue topic: International perspectives on social education

PAPER

Paper

Building bridges, growing minds

Analysis of relationships and the influence of Global South on the student learning process in a Grand Challenge course

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Introduction

This paper aims to study the learning process and outcomes in Grand Challenge courses, and the role of Global South partners in influencing such processes and outcomes. Specifically, the narrative focuses on pedagogy employed to address developmental challenges in an interdisciplinary manner, through the framework of the Grand Challenge courses, while working with partners from the Global South. The paper focuses on relationship-building between student groups and Global South partners, the influence of partners in the knowledge development process, and resultant outcomes. The paper documents the inferences, observations, and experiences of the researcher in a participant-observer role (Atkinson & Hammersley, 1994, in Wallace & Sheldon, 2015) as a student in the course *GCC 3/5003 - Seeking Solutions in Global Health*.

What are grand challenges?

Grand challenges are complex developmental problems that need to be addressed by interdisciplinary approaches, and involve a number and variety of stakeholders. The framework originated in 2003 when the Gates Foundation launched Grand Challenges in Global Health – a set of 14 major scientific challenges, which, “if solved, could lead to key advances in preventing, treating, and curing diseases of the developing world.” (Grand Challenges, 2020).

What are the major grand challenges? While this depends upon the organizations and stakeholders in the process, the National Academy of Engineering, an American non-profit, came up with 14 grand challenges, grouped into four main categories – sustainability, health, security, and joy of living (NAE Grand Challenges, 2020).

Grand challenges in education and the University of Minnesota Grand Challenge courses

In education, the Grand Challenge Curriculum is focused on equipping students with skills and knowledge, and developing sensitivities for engaging with complex developmental problems, from multi- and interdisciplinary perspectives. Over the past decade, 25 research universities in the American Association of Universities, along with several other institutions in the US, have introduced initiatives to address grand challenges (Weiss & Khademian, 2019). A 2018 report from the University of California, Los Angeles, highlighted that nearly 20 major research universities in the US – in collaboration with donors, community partners, and local industry – are implementing Grand Challenge initiatives through research projects, courses and student-led innovations (Popowitz et. al, 2018a).

Why is it important for universities to take on grand challenges? For one, they play important roles in society in terms of spearheading research efforts and providing education, a public good, to communities. Secondly, universities have the wherewithal to bring together diverse stakeholders from academia, industry and the community. They are hubs for discovery, new knowledge, and changing the understanding of the world (Popowitz et. al, 2018b). University students the world over are graduating from their programs and entering into work environments that are complex, where they are required to work with interdisciplinary, cross-functional and cross-geographical teams. While courses in their subject

matter provide them with technical expertise, the Grand Challenge courses equip them to deal with complexities in an ever-changing world.

The University of Minnesota launched the Grand Challenge Curriculum in the Fall semester of 2015, in accordance with the strategic plan of developing a more agile, integrated, 21st century university. The Grand Challenge courses are taught by cross-disciplinary instructors who bring unique perspectives to the courses, and work on developing both foundational skills and the exploration of specific Grand Challenge topics ([Grand Challenges, 2020](#)).

The University of Minnesota offers a great diversity of Grand Challenge courses, including GCC 3013/5013 - *Making Sense of Climate Change: Science, Art, and Agency*; GCC 3035/5035 - *Child Labor: Work, Education, and Human Rights in a Global Historical Perspective*; and GCC 3005/5005 - *Global Venture Design: What Impact Will You Make?* ([University of Minnesota, 2020](#)). The courses include programs offered on campus, as well as study abroad/international experiential learning programs, where students travel to both developed and developing countries for varying periods of time, to learn about developmental challenges, creative approaches and solutions in those countries. This also gives them an opportunity to employ a comparative perspective with regard to those challenges.

Importance of Global South partners in Grand Challenge courses

The term “Global South,” as a geographical construct, encompasses territories in Africa, Central and South America, and Asia (Robertson & Komljenovic, 2016, in [Phan, 2018](#)). Robertson and Komljenovic also use the term Global South to describe marginalized communities and individuals of a certain political, social, racial or ethnic status, who might live in the Global North (Robertson & Komljenovic, 2016, in [Phan, 2018](#)).

The role of Global South educators in study abroad/international experiential learning literature (a major component of Grand Challenge courses) is often informed by the postcolonial narrative. Postcolonial scholarship “seek(s) to call attention to the power imbalances that exist on economic and ideological levels between the West and the rest.” ([Onyenekwu, Angeli, Pinto, & Douglas, 2017, p. 72](#)).

This path explores the symbols of power, equity and solidarity, and leads scholars and students in the direction of studying “about” the marginalized communities (often in the Global South), rather than “with” them. Though the postcolonial narrative is important in recognizing power differentials and inequities, the discourse needs to move ahead, and recognize that Global South partners have an integral, and equal role to play in influencing the learning process as well as outcomes.

How is this framing relevant in the context of Grand Challenge courses? A majority of Grand Challenge courses study developmental challenges in the Global South. While they do have cross-disciplinary faculty teaching the courses, it is important to include Global South experts, faculty and practitioners on an equal footing, along with faculty partners in Global North universities. This ensures authenticity and fairness in learning about the multiple dimensions of grand challenges, while ensuring that Global South partners play an equal role in the learning process. This also signals to students in Grand Challenge courses that there is an equality in discourse, and the narrative moves beyond those at the receiving end of inequities being *subjects of study* to being *active influencers in the learning process*.

Researcher motivations in carrying out the study

The researcher is an experienced educator of study abroad and Grand Challenge courses in sustainability, entrepreneurship and innovation, and has worked with the University of Minnesota in designing and teaching these courses. Over six years of working with interdisciplinary groups of students, they observed not only the depth and uniqueness of knowledge that Global South educators, experts and practitioners bring to such programs, but also their influence on positive student learning experiences. The researcher recognizes that Global South experts can play a pivotal role in changing the narrative of the Global South as the *marginalized, have nots, and beneficiaries* of knowledge from the Global North, and also in changing the subjects of study. In addition, they perceive a legitimate gap in scholarship in highlighting the changing

dynamics around Global South experts, or, more generally, the scholarship originating from marginalized populations on their own perceptions of roles and influences.

Study objective, setting and methods

The objective of the study was to establish the role of Global South experts, educators and practitioners in the student learning process and in the outcomes of a Grand Challenge course. The researcher was enrolled as a student in the course *GCC (3)5003 - Seeking Solutions in Global Health*, which is offered as an interdisciplinary elective course under the Grand Challenge category of courses at the University of Minnesota. The course objectives (extracted from the course syllabus) are as follows:

“In this course, students will examine the fundamental challenges to addressing complex global health problems in the world’s poorest countries. Together, we will seek practical solutions at the nexus of human, animal, and ecological health. While there isn’t a single “right” solution to grand challenges, progress can be made through an interdisciplinary perspective with an emphasis on ethical and cultural sensitivity, and on understanding their complexities. This exploration will help students propose realistic actions that could be taken to resolve these issues. This course will help students gain the understanding and skills necessary for beginning to develop solutions to this grand challenge.”

Students worked in teams to learn about grand challenges, discussed existing approaches to addressing them, and came up with their own ideas, in the form of business plans. While some student teams focused on ideas and interventions pertinent to two countries in the Global South – one in East Africa, and the other in the Horn of Africa, others worked on grand challenges pertinent to immigrant communities in the state of Minnesota. The three (and occasionally four) Global South experts involved in the course had a wide range of backgrounds and experiences.

While some were technical experts, others worked on training and capacity-building projects. While some experts had spent significant time in the Global North (developed countries), either as students or in professional roles, or both, others had extensively worked with Global North partners on collaborative projects. The two principal University of Minnesota faculty came from backgrounds as varied as corporate and nonprofit management, nursing and community/global health. Notably, both faculty had worked extensively with Global South partners in different capacities. Student teams had weekly interactions with the Global South partners through email, Skype, Whatsapp, and other communication channels.

The researcher carried out a multimodal qualitative study using a participant-observer strategy (Atkinson & Hammersley, 1994, in [Wallace & Sheldon, 2015](#)). As a student in the class, they worked with one specific student team, focused on youth development and job provision in a country in the Horn of Africa. They participated in class discussions, assignments, and group activities, thereby being privy to the learning tools, pedagogies, and process. As an observer, the researcher paid attention to the relationship-building process between the students and Global South experts, the role of the experts in information gathering/provision and mentoring, and the equity and power dynamics between the various stakeholders. In addition, the researcher conducted interviews with two students, two University of Minnesota faculty, and three Global South experts. These interviews were conducted in various ways – face-to-face, on Skype (with the Global South experts), and through written answers to questions. The goal of these interviews was to gather perceptions of the influence of Global South experts in the learning process and in outcomes, and of the general relevance of such experts to Grand Challenge courses.

Analysis of findings on the role of Global South experts

The Global South experts described themselves as “conduits” and “bridge builders,” filling gaps in knowledge for students, and as “providing a true reflection of happenings on the ground.” (A. Raman, personal interview, November 4, 2019). One of the Global South partners believed in the agency of the people in their country – there is an awareness of problems and solutions, but the pathway from

conceptualization to execution is fraught with challenges. The students' role in this course was that of knowledge- and expertise-gathering – they examined various problem statements and existing approaches, and applied their learning from the course to the formulation of creative and sustainable solutions, applicable in the local context. The Global South expert provided consistent mentoring and validation of such approaches.

In allocating a prominent place for expertise from the Global South, the experts appreciated the uniqueness of the course structure. “The program leverages the value of the Global South. We leverage our knowledge to come up with cost-effective interventions, with a minimal budget. Knowledge and value from the Global South – otherwise they would not understand. (They) appreciate that the Global South is adding knowledge, and is in a knowledge-building role” (A. Raman, personal interview, November 4, 2019).

Though the Global South experts recognized gaps in knowledge, there was the perception that sometimes such gaps might be overstated. One expert pointed out that students enquired about mobile phone usage amongst the youth in their country, which might be perceived as a legitimate problem from the “Western” perspective. However, the expert pointed out that the “(continent) is global, there are phones coming in from China” (A. Raman, personal interview, November 8, 2019). This is a delicate balance – on the one hand, students tried hard to remain sensitive to the local context, and on the other, they wanted to exercise caution in perceiving gaps that the Global South partner might not think of as significant.

Experts also indicated that sometimes students came in with preconceived notions, and tended to apply their own framings to problems in the Global South. Experts suggested open-mindedness – “come with an empty cup,” the expert in East Africa said (A. Raman, personal interview, November 4, 2019). “That way, when something new is poured in, you can learn from it.”

Global South partners were instrumental in establishing interaction processes and regular (weekly) meeting schedules between them and the students. The Global South expert in East Africa opined that this consistency in interactions is important in the development of ideas, and in the continuity of the learning process. Each week, the team discussed new ideas. The expert reviewed each idea and suggested pathways for further exploration. The primary expert also connected students to other experts, through a careful introduction process. “(I) personally meet people, tell them about the student focus. Through (Skype) calls, (I) introduce them to the topic, introduce the team. (I) tell them about moving forward, (and) to validate the ideas... I do the groundwork to see that they are on the same page before they meet.” (A. Raman, personal interview, November 4, 2019). The Global South expert ensured that the interaction with other experts was optimal for everyone. For undergraduate students, this was perhaps one of the first opportunities to learn about multi-stakeholder engagements, analyzing complementary and conflicting information, and working in teams towards a specific short-term goal (the business plan). The students also navigated cultural contexts that are different from milieus that they are normally familiar with.

All three interviewed experts were appreciative of the progress that students had made through the semester. They attributed it to systematic information-seeking, thoroughness in utilizing information towards project goals, and flexibility. One expert said, “One of the best things about working with the team was how they were available to take part in the calls, with them having to be up early in the morning. They were also very understanding of when the (client) team wasn't able to take part in Skype calls. They let the (client) team guide them on the best direction and asked questions when they needed verification.” (A. Raman, personal interview, November 18, 2019).

The Global South partners are the feet on the ground – they provide information on realistic and relevant contexts, since the students are unable to visit the countries during the course. One expert recalled a comment they heard from a course mentor – “I attended the student presentation – I thought that they (the student team) had been to (the country in East Africa).” (A. Raman, personal interview, November 4, 2019).

The University of Minnesota (Global North) faculty instructors viewed the Global South experts as being instrumental in providing practical information. “They strengthen my teaching,” one instructor noted (A.

Raman, personal interview, November 4, 2019). There was also a clear role demarcation between the faculty instructors and Global South experts. While the former provided theoretical and pedagogical framings, the latter were important in establishing the local context. “Students have breakthrough moments when they read literature, tie theories and practical information together, and realize, “You know what, the books are actually right.” (A. Raman, faculty instructor interview, November 14, 2019).

The Global South experts were also integral in terms of establishing appropriateness of focus. Some topics were culturally sensitive – and it wouldn’t behoove a group from a different cultural context to intervene. “A discussion on mental health, for example – if there is an area that the West shouldn’t be dabbling in, then it is probably mental health in resource-poor countries.” (A. Raman, faculty instructor interview, November 14, 2019).

The instructors acknowledged that the quality of projects has improved since engaging with Global South experts. “We have always had superstar students – you can do anything with them. (However), the quality of good work has also become consistent.” (A. Raman, faculty instructor interview, November 14, 2019).

The instructors alluded to an improvement in the level of sophistication in discussions, which didn’t exist in classrooms some years ago. There may or may not be a correlation with Global South expert involvement, but the general cultivation of nuance and refinement in discourse benefits from disparate rich narratives. The different pedagogies keep the discussions sufficiently radical, but also practical, which is “all right, things are messy, but here are the tools, and here is the info to do something about it.” (A. Raman, personal interview, November 14, 2019).

Students viewed their interactions with Global South experts as part of their personality growth. One of the two students interviewed noted that through navigating cross-cultural interactions with the partner in the Horn of Africa, they had learned to “reach out to contacts, ask questions in meetings, raise concerns, make suggestions, summarize (my) ideas into messages, and more.” (A. Raman, student email interview, November 2019). In such experiences, the modalities of interactions were as important as content and expertise – students learned to navigate time differences, discovered new modes of remote communication such as Skype and Whatsapp, and learned to frame questions and ideas in culturally appropriate ways.

Global South experts were important in validating secondary information obtained through online research. Even the most respected peer-reviewed journal articles might fail to capture cultural nuances. One student recalled that one of the Global South experts raised the issue of “users pointing the finger at our intervention when issues out of our control would arise.” (student email interview, November 2019). Another expert suggested a marketing plan, which helped the group further refine their intervention. The student recognized other advantages of Global South expertise – the need to make fewer assumptions based on secondary research material, and the ability to find specific in-country skills relevant to the intervention (in this case, an Internet company in-country to design a website relevant to the solution).

The other interviewed student viewed the presence and expertise of the Global South experts as being instrumental in situating the geopolitical and socioeconomic contexts of the city in the Horn of Africa that their team focused on. The “on-the-ground assessment” was important in clarifying assumptions and gaps in knowledge (A. Raman, student email interview, December 3, 2019). The student was also appreciative of the perspective of the Global South experts in understanding a highly localized situation. “I have a better understanding of what daily life is like in a country and city in the middle of a (situation), and the drive of many people in (the location) to better themselves and their community, despite the (situation). This is very inspiring.” (A. Raman, student email interview, December 3, 2019). (The words in parentheses are the researcher’s own, and replace words that might identify specific identities and locations).

Addressing postcolonial framings, privilege, and moving forward from the narrative

The involvement of Global South experts in this course is a departure from the postcolonial narratives that dominate Global North-South partnerships. This is due to many factors, the prominent one being that the

University of Minnesota faculty consider Global South experts to be equal and important to the course. Though the course focuses on the study of grand challenges, some of which are in the Global South, the focus is on studying *with* the experts, in addition to *about* (country contexts). One of the faculty instructors admitted to never having considered a separation between them and their Global South counterparts. Both instructors identified themselves as having previously taken part in professional engagements where the traditional postcolonial framings would have prevailed. However, they recognized that things are now different.

One instructor said, “I like to think I am trainable – I would be pretty uncomfortable having an honest conversation (with you) on how I saw my role when I was living in (an East African country) back in the 80s. I don’t feel proud of it, but it is a product of my time and my understanding of how one behaved and what one expected.” (A. Raman, faculty instructor interview, November 14, 2019).

Both instructors recognized that students have become sensitive to an evolution in discourse. One of the instructors recalled a class they taught a few years ago, where, during student introductions, one of the students remarked, “I hope this is not yet another class where we are going to talk about the failings of the Global South.” (faculty instructor interview, November 2019). The instructor notes that “in the early 2000s, a student would not have had the language to say that.” (A. Raman, faculty instructor interview, November 14, 2019).

Despite this evolution, structural inequities exist. The Global North still holds a position of privilege, and Global South experts might have the ulterior motive of capitalizing on such a privilege to shape their own careers. Financial capacity still comes from the Global North. Even in projects designed so the outcomes are relevant to the needs of the stakeholders, there might be a power imbalance. “The structure has been created in Washington, D.C... so you already know what you are going to offer.” (A. Raman, faculty instructor interview, November 14, 2019). However, Grand Challenge courses akin to the one discussed in this paper, where Global South experts are respected for their knowledge and expertise, might be a step in the right direction.

Application of such courses in the real world

From a student perspective, the class enabled building contacts with real-world partners, which are important for students, as these are the kind of international partners that many students might work with while on a career path. In addition, some of these partners might well shape such career paths, in terms of future collaborations and work opportunities. The researcher, as a Global South educator, has herself helped University of Minnesota students find and set up internships and entrepreneurship opportunities in the developing world, a clear indication of how educators and experts in the Global South can influence the careers of students from Global North universities.

In addition, students develop the confidence to interact with people in different roles, and across cultural boundaries. They learn how to validate assumptions, and parse information from multiple sources, to form a coherent solution. One of the interviewed students remarked, “Partnering with another organization and another country has given me leadership skills, improved communication skills, bravery, a more open mind, and a stronger work ethic.” (A. Raman, student email interview, November 23, 2019). They also view this course as a first step to “firm up some of my passions.” (A. Raman, student email interview, November 23, 2019).

The other student appreciated the instrumental role the course has played in developing cross-cultural skills, and engaging with “unfamiliar ideas, situations, and cultures.” (A. Raman, student email interview, December 3, 2019). They highlighted the development of entrepreneurial skills, business model development, refining communication and public speaking skills, and responding to constructive criticism. They also recognized the role of the course in developing “empathy, cultural respect, and a broader, more diverse worldview.” (A. Raman, student email interview, December 3, 2019).

Conclusion and future steps

Grand Challenge courses provide a framework for recognizing that the Global South (both developing countries and marginalized contexts) should not just be treated as a subject of study or recipient of solutions from the Global North, but as an equal partner in shaping learning processes and outcomes. In an increasingly complex and volatile world, skills and expertise take precedence over race and ethnicity. It takes time, effort and willingness to develop courses, learning models and collaborative projects where both haves and have nots have an equal voice. In closing, while this case study is relevant to the Global South, the information learned can be extrapolated to include not just the narratives, but the expertise and guidance of the traditionally disenfranchised/marginalized in developing courses, content and pedagogy. This ensures a more equitable *learning with* rather than a conventional *learning about* approach.

References

- Grand Challenges. (March 31, 2020). *Grand challenges*. Retrieved from <https://grandchallenges.org/initiatives>
- NAE Grand Challenges for Engineering. (March 31, 2020). *14 grand challenges for engineering in the 21st Century*. Retrieved from <http://www.engineeringchallenges.org/challenges.aspx>
- Onyenekwu, I., Angeli, J. M., Pinto, R., & Douglas, T. R. (2017). (Mis)representation among U.S. study abroad programs traveling to the African continent: A critical content analysis of a Teach Abroad program. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 29(1), 68–84.
- Phan, L. H. (2018). Higher education, English, and the idea of ‘The West’: globalizing and encountering a Global South regional university. *Discourse: Studies in the Cultural Politics of Education*, 39(5), 782–797.
- Popowitz, M., & Dorgelo, C. (2018a). *Report on university-led grand challenges*. UCLA: Grand Challenges. Retrieved from <https://escholarship.org/uc/item/46f121cr>
- Popowitz, M., & Dorgelo, C. (2018b). *How universities are tackling society’s grand challenges*. Retrieved from <https://blogs.scientificamerican.com/observations/how-universities-are-tackling-societys-grand-challenges/>
- University of Minnesota. (March 31, 2020). *Grand Challenge Curriculum*. Retrieved from <http://gcc.umn.edu/>
- Wallace, M., & Sheldon, N. (2015). Business research ethics: Participant observer perspectives. *Journal of Business Ethics*, 128(2), 267–277.
- Weiss, J. A., & Khademian, A. (2019). *What universities get right -- and wrong -- about grand challenges*. Retrieved from <https://www.insidehighered.com/views/2019/09/03/analysis-pros-and-cons-universities-grand-challenges-opinion>

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