Chapter 14
An Improbable International Collaboration: Finding Common Ground

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Abstract Consider this a story about scholarly collaboration with a twist. The scholars live and work on opposite sides of the globe – one in Canada, the other in Egypt – and they have only ever communicated via digital media. Nonetheless, they have discovered a shared passion that fuels their work: to prepare teacher candidates to bring curiosity, wonder, dedication and a sense of caring for people and for natural environments into their classrooms. Presented in three parts, the authors share the circumstances and development of their initial collaborative environmental education project, and they reflect on the benefits and obstacles of their continued partnership. Finally, they discuss how they each interpret environmental education in their two different educational spheres.

14.1 Finding Common Ground

This a story about scholarly collaboration with a twist – the scholars live and work on opposite sides of the planet and have only ever communicated via digital media. Nonetheless, they have discovered a shared passion that fuels their work: to promote environmental and sustainability education and action amongst their teacher candidates and thereby to prepare them to bring curiosity, wonder, dedication and a sense of caring for people and for natural environments, into their classrooms.

The necessity and ability to find common ground for successful international collaboration have required considerable effort. As Lucie Sauvé (2009) points out, "We are embodied, localized, contextually grounded beings" (p. 325). We understand the world as we live it – different localities and contexts can create barriers that isolate us from each other. Thus, while a common interest in environmental

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education (EE) connected us, it was only through deliberate communications that the connection could become strong enough to support collaboration between two people who live and work in different worlds. We shared specific descriptions of the courses that we teach, the nature of our working circumstances and the nature of our teacher candidates. We reflected on the merits of various research methodologies and theoretical frameworks.

For most of our chapter, we have maintained our individual voices by telling the same story from two vantage points. It has been our ongoing challenge to find common ground (collegially, academically and personally) as we explored our perspectives on environmental and sustainability education. Thus, we invite the readers to find their own points of intersection with our story. Perhaps the recounting of our experiences will inform and inspire environmental educators, regardless of where they find themselves on the planet.

In *Part One: Finding Common Ground*, we recount our initial contact and conversations based on email threads. We go on to describe the development of a research and writing partnership that focused on the work of teacher candidates in an EE project at Beni-Suef University in Egypt. The project resulted in a coauthored paper (Abd–El–Aal and Steele 2013a) and two international conference presentations (Abd–El–Aal and Steele 2014, 2013b). In *Part Two: Reflecting on our Collaboration*, we consider our motivation to work together, describing both the obstacles and the benefits of our partnership. Finally, in *Part Three: EE Lenses*, we examine our differing perceptions of what EE means to us, given our very different life and work circumstances in two countries that vary considerably in their politics and culture.

14.1.1 Part 1: Finding Common Ground

Astrid Upon completing and defending my dissertation in November of 2010, I was excited to have my very first article published in the International Journal of Environmental and Science Education (Steele 2011). It was based on the environmental/science education action research project I had completed with secondary science teachers in Northern Ontario high schools. I was a freshly minted academic, with decades of public education behind me in wide variety of subject areas and grades, invariably embedding outdoor and EE wherever I found myself. In the fall of 2011, I had just begun to work at a small Ontario university as a science education methodology professor and found myself on a steep learning curve in the world of academia.

Wafaa The 5 years I stayed in the UK to get both my Master of Research and Ph.D. gave me the opportunity to investigate how teacher educators in a developed country apply teaching theories into practice in a way that I had never seen in Egypt. After I came back to my home in January 2008, I decided to implement what I had learnt while away to my own faculty of

education at the Beni-Suef University. In trying to find a theory that maps and explains EE, I did some research through international journals and found that my work could be theoretically framed by critical place-based pedagogy (Gruenewald 2008). Then, I contacted Astrid (via email) after I read about her project and the role she played for 5 months as a facilitator in order to assist secondary science teachers who had limited EE exposure to embed it into their science curricula. I found a similarity between Astrid's action research and what I was doing at my faculty, as I too support my students to practise EE rather than just reading about it. We both (a) focus on EE professional development, and the challenges that teachers face in practice, and (b) adopt very similar methodologies (action research, with data collection through interviews, meetings, artefacts, etc.). These similarities encouraged me to email Astrid without any hesitation.

Astrid It was without much context but with considerable curiosity that I responded to an email from a professor in Egypt commenting on my article and requesting that I collaborate on her research. Egypt! What an amazing world I had entered – where I might be drawn into a conversation about EE by someone on the other side of the planet. I wanted to know more about Wafaa the person, about her university and her EE course, more about the country of Egypt. (I remembered vaguely that there had been some recent political upheaval.) So, I began an email thread that built a foundation for collaboration:

> Dear Prof. Abd–El–Aal,
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> Thank you so much for contacting me. It is very affirming for me that the work that I did here in Canada is being considered by scholars in other countries. I would be most interested in starting a dialogue with you. I would like to hear more about the course(s) that you are teaching, a description of your students and the type of action research you might be interested in, and perhaps some of the other work/research that you are doing. (5/19/11)

Wafaa I asked Astrid to co-write a research paper on the EE course I had developed for teacher candidates. After sending her the data (comprised of videos, photos and text), transcribed and translated from Arabic into English, we started to organize our paper and take individual and cooperative tasks. There was no consideration for any ethnic issues between us. One of the funny things in this challenging collaboration was that I first did not know Astrid's gender and I did not mind, which conflicts with other Arab women's views. This is because I was looking for a person to share my perspective and help me explain my view on EE, regardless of gender.

Astrid The response that I received set me on a journey of re-understanding and re-imagining what EE might encompass, beyond my privileged perception rooted in the Western world. I had no conception of what EE might look in a majority world country, indeed had not ever given it much thought. (Even the term *majority* world was new for me – a descriptor without the colonial implications inherent in the term *developing world*. *Majority world* highlights that the majority of humankind lives in the countries of Asia, Africa and Latin America and points out the incongruity that the

group of eight countries – whose decisions affect majority of the world's peoples – represent a tiny fraction of humankind [as defined by Appropedia]). Wafaa wrote with passion about her desire to introduce her teacher candidates to nontraditional EE studies:

Dear Prof. Steele,

... environmental education courses in Egypt are grounded on general environmental knowledge that mostly talks about topics such as different kinds of pollutions. As I mentioned before, student teachers are neither encouraged to investigate their own local environmental problems nor reflect on such problems. They are taught some environmental topics in closed classrooms without any opportunity for students to do fieldwork. Also, Egyptian research on environmental education reflects Egyptian researchers' traditional view of learning – rote learning, i.e. learning for memorizing massive knowledge about environment, which some Egyptian researchers call environmental literacy! Thus, designing an environmental education course based on fieldwork, students' taking part in solving what their local areas suffer from would be a NEW trend in Egypt. It is worth/interesting to study the impact that the January Revolution had in Egypt and how it has affected my students and their desire to put their environmental learning into action, i.e. environmental citizenship. I would call this study, Towards Environmental Citizenship in Teacher Education Programmes in Egypt. (5/31/11)

Astrid Initially, when I agreed to collaborate with Wafaa in writing a paper about place-based EE in an Egyptian faculty of education, I anticipated that it would be an opportunity to compare what I thought of as advanced EE methods found in Canada (such as activity-based student-focused inquiry) with the fledgling efforts in Egypt, but that would not be the case. Wafaa had already implemented those pedagogies and had collected significant data, in the form of transcripts of interviews/fieldwork (in Arabic), photos and videos, based on EE projects that her teacher candidates had undertaken. The projects themselves were compelling, including meeting with shopkeepers to discourage the use of precious water to wash their sidewalks, meeting with a town council to encourage and support the clean-up of a local water way and modelling and encouraging a litter clean-up in a neighbourhood. As I read the stories of the Egyptian students working in their communities to clean up, rebuild and educate community members in how to care for their environments, the concept of place-based education took on new meaning. Not only were the students learning about their communities but they were working to decolonize those communities, to create a new vision of how their communities might function.

Wafaa Trying to accomplish the aims of the EE course I was teaching, I thought about the relationship between what a student studies and the place/communities in which they live.

Dear Astrid

Please find attached an interesting file (Fig. 14.1) indicating the impact of my environmental education course as well as the Egyptian revolution on the students' environmental citizenship. Although it's in Arabic, you would see how students who called themselves Hope Group, and called their problem the Disaster, determined their own environmental problem in their village and conducted interviews with people there not only to reflect on

Fig. 14.1 Hope Group's focus area for water and garbage clean-up in their village

their unacceptable environmental behaviour, but also to solve this problem. The students tried to convince those people to co-operate with each other to maintain the water in their village clean. They also encouraged the people to make a complaint to their local council. Actually, I'm so proud of my students, the CDs they submitted to me contain lots of data which reflects a beginning of awareness of their roles and rights. Regards, Wafaa. (6/4/11)

Astrid Wafaa's request was that I assist her in analysing the data and writing about it. This required that she translated the transcripts from Arabic to English so that I could read them – an enormous undertaking. Within a week, English transcripts began to appear in my inbox, and I was captivated by the narratives of impassioned young Egyptian teacher candidates striving to improve the well-being of their communities. The recent Arab Spring figured notably in their discourse: the desire of ordinary Egyptian people to create a better life for themselves was evident in the many references to environmental citizenship. (By then I had done my own research to understand contemporary Egypt, beyond my romanticized images of pharaohs, pyramids and camels.) I found myself wondering if the teacher candidates at my institution could be equally motivated to make such significant contributions to their own communities. Certainly, some of them had already done so, but for the most part, teacher candidates might speak about the importance of healthy communities although many are complacent in their actions. One needs look no further than the waste bins at the university, many filled to overflowing with plastic and non-recycled items. I began to question if what I thought of as a Canadian version of EE, with outdoor field schools, recycling projects and EE-enhanced curriculum,

Fig. 14.2 Sample slides of the presentation at WEEC 2013, in English and Arabic

was all that effective. Perhaps I had a few things to learn from my Egyptian colleague. Preparing our manuscript for publication was accomplished over several months of emails, during which I continued to struggle with how I could contribute to Wafaa's research project. I wondered if it was even appropriate for me, with my Western views, to analyse a project carried out in an eastern majority world country.

Dear Wafaa,

I have read a number of Dr. Greenwood's articles (he formerly went by the name of Gruenewald) in which he theorizes the connection between place-based education, which is essentially an integrated environmental study of a specific place – and critical pedagogy that seeks to identify and rectify social justice issues. Greenwood identifies two concepts: decolonization and re-inhabitation; I especially find the concept of re-inhabitation compelling, particularly given the example in the transcript in which the students, the farmer and the woman try to come to terms with how best to solve the water pollution problem. I also wonder if the themes of decolonization and re-inhabitation might speak clearly to the changes that you described in your email, of the attitudes of students and others... a sense of liberation and that there is an ability to move forward into a better life. (6/20/11)

Wafaa's reply came the following day:

Dear Astrid,

Thanks for sending this article (Gruenewald 2008: Critical Pedagogy of Place), it really touches our research. The rest of data also confirms your view as well. … I agree with you that the themes of "decolonization" and "re-inhabitation" describe what my students did in their communities. (6/21/11)

Critical place-based pedagogy provided a framework for analysing the videos, the photos and the translated conversations between fervent EE students and villagers, shopkeepers, students, farmers and apartment dwellers. As our collaboration continued, the seeds of friendship were sown, and I became increasingly interested in finding an opportunity to visit Wafaa in person. When a call for papers came from the World Environmental Education Congress WEEC 2013, to be held in Marrakesh, Morocco, I thought perhaps this would be the opportunity to finally meet Wafaa and present our paper together at the conference!

Wafaa We both worked to prepare the research paper for publication in the *Journal of Education for Sustainable Development* (JESD) (Abd–El–Aal and Steele 2013a) as well as for the presentation at the WEEC 2013 in Morocco, which had to be written in Arabic and English, a requirement from the conference organizers (Fig. 14.2). This took many emails in which we both tried to explain our views on the paper analysis. I got so excited to meet Astrid at that conference and present our paper there. However, due to a financial constraint, I was neither able to attend the conference nor meet Astrid face to face! Later, Astrid let me know what the conference attendants' comments on our paper were and their questions. Although I felt disappointed, until now, I have never thought that I wouldn't meet Astrid one day!

Astrid Alone, I travelled to northern Africa to make the presentation for both of us, wondering at the professional funding inequity that would enable one scholar to travel halfway around the world while the other did not have the professional funds to travel on the same continent. Indeed, our next paper was to be presented by Wafaa at a conference in Spain, yet again her attempts to attend were stymied by bureaucracy. As a scholar, Wafaa faces barriers of economy and bureaucracy that I do not. Yet, she carried on with her research and soon suggested a second project, this time addressing students' understanding of science content.

Wafaa After I investigated my students' science content knowledge, I again asked Astrid to co-write a paper to present at EDULEARN14 in Spain. Once again, we worked together via emails in order to prepare the paper for this conference. She was not able to attend the conference, but I did my best to do so. I had to submit many certificates to the Spanish embassy, which took much time and travel to Cairo. Unfortunately, I neither presented the paper at that conference nor met Astrid.

> Dear Astrid,
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> For the visa, I am so disappointed and frustrated. You cannot imagine the number of documents required! For example, my marriage certificate, local ID, HR letter, accommodating reservation, ticket/s, bank statement, 4 pages– application form etc. All those have to be original and a translated copy of them. …You cannot imagine what I am feeling now! I was so happy when the abstract was accepted, but now I am... Anyway, as we believe here everything is fated. (5/15/14)

Astrid Despite setbacks, our collaborative projects continued, branching into other intersections of science and EE including the use of social media and socio-environmental issue-based pedagogies. We took this experience of writing about our international collaboration as an opportunity for reflection, as a gateway to moving forward with deeper understanding of our work. In the next section, we give thought to our shared work and experiences.

14.1.2 Part 2: Reflecting on Our Collaboration

Wafaa No doubt that my collaboration with Astrid, which helped me find a theory (place-based education) that supports and explains my work in EE, encouraged me to ask for more cooperation. The applause that our first paper received at WEEC 2013, as well as the JESD reviewers' comments, motivated me to ask her more about how a specific course such as the science education course is taught at her faculty. Then, I thought about the ways in which I, and my students, could benefit from a redevelopment of the course I teach. Astrid was helpful with advice and comments on other research projects I had conducted; she provided website addresses and journal articles that are not available through my institution. However, in spite of the benefits, there were some obstacles, for example, sometimes she was busy conducting research projects or was in the field with her students so communication was delayed. Also, she is off work on Saturdays and Sundays, but I work on these days so communicating could be troublesome. Sometimes I found connectivity with the web at my faculty and at home unavailable or too slow to send emails or attach files, especially videos and photos.

Astrid Throughout our extensive correspondence of over 5 years, we have never actually met nor have we Skyped (initially, Wafaa's Internet connections were not reliable) and so have used email exclusively. Despite what might appear to some to be a limited form of communication, we have come to know each other, sharing our personal lives and professional endeavours. Language is not a barrier as much as an encumbrance, particularly for Wafaa who is faced with communicating in a second language and not infrequently must translate Arabic data for me. So we have tried to make our words count. We encountered cultural stumbling blocks, for example, the differences between the two university cultures in terms of funding and grant resources, collegial support and scholarly expectations and the difference in ease of travel to attend conferences. The improbability of our international collaboration lies within the generally recognized requirements for collaboration, which are a shared purpose, collegial relations, norms of improvement and structures (Wallace et al. 2007). We share a common purpose (i.e. to provide environmental and sustainability education for our teacher candidates), we have developed a collegial relationship, and we both seek to improve our practice. However, the structures that would allow us to share time, space and resources have proven to be inhibiting and have required persistence and patience to find workable solutions.

Wafaa This points to the importance of communication between teacher educators in all parts of the world. Our cooperation reflects a kind of integrating view about the environment and our roles as teacher educators towards it. Emails played the main role in our contact. Sometimes it took me many

hours a day to send Astrid the videos the students took during their fieldwork. This highlights the importance of adequate communication technologies between researchers in different countries.

Astrid I know that our collaboration has enriched me in numerous ways and not only professionally. Over the years, Wafaa and I have shared bits of our personal lives as well: health concerns of our families, concern for a changing climate and imagining what it might be like to visit each other. Simple conversations nevertheless have had profound impacts as collaboration is relational and requires strengthening not only of professional bonds but of personal understandings as well. Based on a growing understanding of the cultural, geographical and political spaces that we individually inhabit, we have had to invent a unique shared global space for ourselves. Noel Gough (2013) describes this as "a process of constructing transcultural 'spaces' in which scholars from different localities collaborate in reframing and in decentering their own knowledge traditions and negotiate trust in each other's contributions to their collective work" (p. 41). Our communications, and the resulting collaboration, bear significant semblance to what Michael Peters and Daniel Araya (2009) describe as a peer-to-peer (P2P) learning network or ecology. Of course ours is a very small network with only two nodes of intersection; still, our "voluntary collaboration between two equipotent partners" (p. 246) resonates with many of the criteria set for the P2P learning ecology: (a) informal and responsive, (b) consistently evolving over time in directions that we choose, (c) embracing a growing level of trust, (d) decentralized and participatory and (e) tolerating experimentation and failure. Recognizing that our collaboration has created opportunities for learning and professional development for both of us, we continue to work within, and hopefully nurture, our P2P network.

14.1.3 Part 3: EE Lenses

In this final section, we share our thinking about EE, again from our two perspectives. Wafaa discusses the difficulties of providing what she views as meaningful EE experiences in an Egyptian context while Astrid compares the efficacy of a Western rendering of EE research with the work that Wafaa is doing in Egypt.

Wafaa When I looked at the EE books my colleagues wrote and utilized with students, I found that they focused on giving the students general information about the environment and associated problems such as pollution but without any activities that would help them interact directly with their local environments. I dislike studying or teaching only abstract theories without practicum and activities. Unfortunately, I was faced with obstacles, including the lack of resources and a misunderstanding by my col-

leagues of the "new teaching methodology" I brought from the UK. My colleagues felt that "I had bought some materials and tools in order to play with the students instead of teaching the science content that the students have to learn". Although this upsets me, I tried to move forward to achieve my own views about teaching and the relationship between the teacher and students. I consider my colleagues' misunderstanding/unawareness regarding my students' fieldwork and practicum as one of the main barriers to benefiting from Western perspectives. They have never done what I do. Their comments "What are you doing? You're now here in Egypt, not in the UK." are wearying for me. Although there is a consensus in the scholarly literature on the importance of EE in developing students' attitudes towards environment in Egypt (see, e.g., Al–Tanawey and Al–Sherbeiney 1998), they have not taken the opportunity to participate in solving any environmental problems in their communities. As environmental degradation is one of the serious threats facing Egypt, there has been an increase in EE at all levels of schooling. For example, in the primary school, Arabic language curricula address environmental issues (e.g. keeping streets clean from garbage, maintaining environmental resources, etc.). At the university level, at Beni-Suef University, students in the preschool department have a mandatory EE course. Since the 1970s teacher educators have conducted many studies on EE, resulting in the development of EE courses (e.g. Abd–El–Salam 1991). The EE courses and research in Egypt have focused mainly on quantity rather than quality, typically providing content knowledge and employing quantitative questionnaire methods. But, these methods do not reveal or impact what people actually do in the places they inhabit. If we want to change attitudes and behaviours, we must adopt a different pedagogy that helps learners think critically about actual environmental issues surrounding them, allowing them to interact with their places as effective citizens who can make wise decisions regarding the present and with an eye to the future. This "critical pedagogy of place challenges all educators to reflect on the relationship between the kind of education they pursue and the kind of places we inhabit and leave behind for future generations" (Gruenewald 2008, p. 308). In Egypt, unless there is a united view/strategy of implementing EE in schools and universities, what I do and aim to achieve would be merely an individual effort. International cooperation in the field of environment is important, as a way for EE researchers and teachers to exchange their views on sustainable development through different educational lenses.

Astrid As I pondered our work with teacher candidates, I wondered if EE really could fulfil its promise to transcend cultures and exist as a global enterprise (UNESCO 2014). In the *International Handbook of Research on Environmental Education* (2013), Robert Stevenson, Arjen Wals, Justin Dillon and Michael Brody emphasize five characteristics that identify EE: (1) a normative or value-laden endeavour; (2) interdisciplinary, embracing

environmental, sociocultural and economic elements; (3) not only the development of knowledge, skills and attitudes but also agency to advocate and act for change; (4) enacted in both formal and informal spaces; and (5) local and global in scope. Each of the five characteristics resonated with the EE research and teaching that I have been doing in Canada, but I wondered if they would be adequate to the work that Wafaa has been doing in Egypt. In other words, I was asking if the perspectives purported by four highly respected EE scholars from the Western world would ring true in Egypt, a majority world country. From my understanding of her work, Wafaa does indeed encourage her students to enact change in local, informal spaces in their communities; she recognizes the impact of political, social and economic factors that play into the interactions between her students and community members.

14.2 And Finally...

Wafaa If we want to participate effectively in our communities and protect ourselves and the places we live, we can benefit from others' experiences on an international stage. This does not mean that educational systems in majority world countries adopt any methodology or pedagogy. The criteria that would govern what majority world countries will import are dependent not only on culture and economic differences but also on the nature of the environmental issues in every country. Developing an international partnership for EE that aims at encouraging environmental protection, rationing environmental resources, recycling mechanism, etc. can shorten the distance the majority world countries would take to solve their environmental problems. I consider my collaboration with Astrid a kind of distance education through which two teacher educators in the field of EE, in two very different countries, provide an example of how we can together promote sustainable EE practices in teacher education programmes.

Astrid As an educator in Canada, I thought that I could offer insights to those educating for environment in the majority world, but experience demonstrates that I have much to learn about what EE really means globally and how small my own offerings are in comparison to those who are most impacted by environmental degradation. I want to explore what it means to be an environmental educator when confronted with the realities of the majority world. I know that my reflections will continue to be shaped by my Western thinking pathways, but I also recognize that my collaborations with Wafaa have informed and broadened that thinking. Paul Hart (2005) provides a bridge of sorts to mitigate my tensions and the differences between Wafaa's and my perceptions of what we might offer each other: "All we are doing, as reflexive researchers, is to write in ways that reveal the limits of our knowledge, our political orientation and other dimensions

of self, in ways that reveal the discourses that shape our work and open possibilities for thinking about our work as we get on with it" (p. 399). Indeed, we look forward to getting on with our work within the global EE commons.

Questions

Discussion questions that could help instructors and students to engage in meaningful conversation about the ideas presented in this chapter.

1. How might the political climate in Egypt during the Arab Spring (2011) have influenced the direction of the research and the actions of the teachers-in-training?
2. As you listen to the voices of both Wafaa and Astrid, do significant differences and/or commonalities in culture emerge? If so, comment on how those might have influenced the collaboration.
3. How do you see this collaboration of international researchers benefiting each author and their students?
4. Comment on the authors' strong desire to meet face-to-face. Why does this seem so important? What might be accomplished by such a visit?

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